DOCUMENT RESUME

ED 390 817 SP 036 378

AUTHOR	Smyser, Sheryl O'Sullivan, Ed.
TITLE	Encouraging Reflection through Portfolios. Proceedings of the National Conference on Linking Liberal Arts and Teacher Education (San Diego, California, October 6-7, 1994).
INSTITUTION	Redlands Univ., CA.; Rockefeller Bros. Fund, New York, N.Y.
PUB DATE	Oct 94
NOTE	115p.
PUB TYPE	Collected Works - Conference Proceedings (021)
EDRS PRICE	MF01/PC05 Plus Postage.
DESCRIPTORS	Cooperative Learning; Elementary Secondary Education; Higher Education; Individual Development; *Liberal Arts; Portfolio Assessment; *Portfolios (Background Materials); *Preservice Teacher Education; *Reflective Teaching; *Self Evaluation (Individuals); Student Development; Student Evaluation; *Teacher Evaluation
IDENTIFIERS	Authentic Assessment; *Reflection Process; Reflective Practice

ABSTRACT

This proceedings reports on a 2-day conference which was the culminating event of a study on ways in which to better integrate the liberal arts with teacher preparation. The papers in this volume represent a cross-section of the growing body of knowledge surrounding portfolios and teacher education. The strongest conclusions drawn from the conference were that portfolios are a valuable tool for demonstrating through authentic evidence that the professional skills necessary for teaching have been mastered, that many methods of portfolio use are valuable, and that further research in this area is necessary. After the Introduction by Sheryl O'Sullivan Smyser, seven papers are included: (1) "The Portfolio: Sonnet, Mirror and Map" (Mary E. Diez); (2) "Portfolios: The Unknown, the Struggle and the Learning" (Diane D. Allen); (3) "Subject Matter Assessment of Preservice Elementary Teachers: The San Diego State University Liberal Studies Assessment Portfolio" (Phoebe E. Roeder); (4) "College Entries Into Portfolio Assessment: Why, How, and What to Watch Out For" (Jerald Hauser); (5) "Portfolio Use in Higher Education: A Primer" (Yvonne Murnane); (6) "Casting Portfolios Across the Curriculum to Encourage Reflection" (James McFadden); and (7) "Collaborative Teaching and Cooperative Learning: Mathematics for Elementary Teachers" (Billy F. Hobbs; Patricia J. Hambrick). Individual papers contain references. (ND)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 390 817

Encouraging Reflection Through Portfolios

Edited by Sheryl O'Sullivan Smyser

Proceedings of the National Conference on Linking Liberal Arts and Teacher Education

October 6–7, 1994 • San Diego, California

Sponsored by the University of Redlands and the Rockefeller Brothers Fund

ORITY
L
L SERVICE™
LABEL 107, FEB 1994

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

S. O'Sullivan Smyser

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

SP036378

University of Redlands

Encouraging Reflection Through Portfolios

**Proceedings of the National Conference
on Linking Liberal Arts and Teacher Education
October 6-7, 1994
San Diego, CA**

Sponsored by

Rockefeller Brothers Fund and University of Redlands

Edited by

Sheryl O'Sullivan Smyser

Acknowledgments

The faculty of the University of Redlands extends its appreciation to the Rockefeller Brothers Fund which supported the National Conference on Linking Liberal Arts and Teacher Education and the publication of this volume of proceedings. The many activities leading up to the conference, the conference itself, and these proceedings have contributed greatly to teacher education becoming the common ground for collaboration among faculty across all the disciplines in traditional liberal arts and sciences.

Table of Contents

Introduction 4

Sheryl O'Sullivan Smyser-University of Redlands, CA

The Portfolio: Sonnet, Mirror and Map 7

Mary E. Diez - Alverno College, WI

Portfolios: The Unknown, the Struggle and the Learning 21

Diane D. Allen - University of North Texas

Subject Matter Assessment of Preservice Elementary Teachers: The San Diego State University Liberal Studies Assessment Portfolio 34

Phoebe E. Roeder - San Diego State, CA

College Entries Into Portfolio Assessment: Why, How, and What to Watch Out For 50

Jerald Hauser - St. Norbert College, WI

Portfolio Use in Higher Education: A Primer 73

Yvonne Murnane - St. Norbert College, WI

Casting Portfolios Across the Curriculum to Encourage Reflection 83

James McFadden - Miami of Ohio, OH

Collaborative Teaching and Cooperative Learning: Mathematics for Elementary Teachers 104

Billy F. Hobbs and Patricia J. Hambrick - Point Loma Nazarene College, CA

This volume of proceedings is the result of a two day conference entitled, "Linking Liberal Arts and Teacher Education: Encouraging Reflection Through Portfolios," which was held in San Diego, California, in October, 1994. The conference was sponsored by the Rockefeller Brothers Fund and the University of Redlands, and was the culminating event of a Rockefeller grant to the University to study ways in which to better integrate the liberal arts with teacher preparation.

Numerous activities preceded the conference. For several years members of the University of Redlands liberal arts faculty had been working with the teacher education faculty to better understand what sort of content knowledge would be most helpful to aspiring elementary teachers. The liberal arts faculty members visited elementary classrooms, and took part in seminars which involved public school teachers, university students, and community members.

The collaboration of many of the constituencies involved in elementary education produced several positive, tangible results. University courses were developed or redesigned with the needs of future teachers in mind. Students began developing portfolios which displayed their knowledge and use of the liberal arts. And a new respect was gained for the importance of all of the roles, liberal arts faculty, teacher education faculty and elementary teachers, in producing strong teaching for young children.

The "Linking Liberal Arts and Teacher Education" conference was a natural outgrowth and culmination of the other activities associated with the grant. The conference focused on a specific way to link liberal arts and teacher preparation, namely through the use of portfolios. Scholars who had been recognized for their success in using portfolios were invited to San Diego for a national conference, and the papers included in this collection resulted from these invited presentations. These collected papers represent a cross-section of the growing body of knowledge surrounding portfolios and teacher education.

While the body of knowledge regarding portfolios may be growing, all the scholars participating in the conference recognized that the topic is still in its infancy. Limited attention has been given to the use of portfolios beyond the elementary grades, and all of the conference participants readily admitted that they were pioneers rather than experts. This meant that there were many different ways to define a portfolio, from a scrapbook of best work to a reflective document showing integration of content. Numerous formats for portfolio design were used, from the very prescriptive to the formless. And, various ways to assess the portfolio, from rubrics to self-assessment, were employed.

The strongest conclusions drawn from the conference, therefore, did not have to do with specific details of portfolio use. Instead, conference participants came away more convinced that portfolios are a valuable tool for demonstrating through authentic

evidence, that the professional skills necessary for teaching have been mastered. Participants were also convinced that many methods of portfolio use could be valuable, and that no one way could be considered the right way. Finally, conference attendees came away with renewed enthusiasm for the work necessary in pioneering a new method. Further research is necessary; further modifications will take place; but, the benefits were judged to be worth the effort.

The papers in this collection of proceedings illustrate how varied and rich the use of portfolios can be. The first entry "The Portfolio: Sonnet, Mirror and Map," by Dr. Mary Diez of Alverno College was the keynote address of the conference. It serves as a worthy overview of the uses of portfolios. Also it provides an introduction to the papers which follow.

The authors of the papers in this volume hope their experience encourages others to use portfolios in their college classrooms and that their work will offer guidance and support to those kindred spirits who would like to try this method.

The Portfolio: Sonnet, Mirror and Map
Keynote Address
Linking Liberal Arts and Teacher Education Conference
Mary E. Diez, Ph.D.
Alverno College

The tradition of liberal arts teacher education in the United States has many strengths; important among them is the practice of examining one's own practice and reflecting on one's own growth. I come to this talk as well with a special interest in the liberal arts, having served as a faculty member in English and communication before moving into the role of teacher educator.

As suggested by the title, this reflection on the use of portfolios will be divided into three parts, three angles for looking at the theme of encouraging reflection through portfolios: the sonnet, the mirror and the map.

Portfolio as Sonnet

Why choose the image of the sonnet for portfolio assessment? I'm sure most of us have at least a passing acquaintance with the form of the sonnet--14 lines of iambic pentameter, with variations of rhyme schemes and thought construction (the Petrarchan/Italian and the Elizabethan/ Shakespearean are the two most common types). But what does the sonnet have to do with portfolio?

I think the following sonnet about sonnets from William Wordsworth provides a clue. "Nuns Fret Not" is a poem I have used in

an interdisciplinary course where students engaged in exploration of the relationships between form and meaning.

Nuns Fret Not

Nuns fret not at their convent's narrow room;
And hermits are contented with their cells;
And students with their pensive citadels;
Maids at the wheel, the weaver at his loom,
Sit blithe and happy; bees that soar for bloom,
High as the highest Peak of Furness-fells,
Will murmur by the hour in foxglove bells:
In truth the prison, unto which we doom
Ourselves, no prison is: and hence for me,
In sundry moods, 'twas pastime to be bound
Within the sonnet's scanty plot of ground;
Pleased if some souls (for such there needs must be)
Who have felt the weight of too much liberty,
Should find brief solace there, as I have found.

William Wordsworth 1807

Wordsworth was one of several poets who used the medium of the sonnet to explore whether the sonnet (and by extension any particular form of poetry) was too rigid. His answer: <u>what constrains also frees</u>. The first part of the poem gathers examples of where an apparent limit is seen as providing benefit. Thus, the limits of the

sonnet's "scanty plot of ground" challenge the poet to capture his or her idea in a specific shape. When it "works," the meaning and form together create exquisite beauty. Wordsworth does not address directly another question: Does following the form of the sonnet make a good poem? I'm sure he would not argue that the form, in itself, assures a beautiful expression. Rather, the form provides a structure for the meaning to be expressed. And this is the point of my first analogy: the portfolio as sonnet.

The portfolio, like the sonnet, is simply a form, a structure. Provided one puts quality work between its covers, the portfolio can be a structure to help an individual express meaning. But its quality depends upon what the individual does with it. Too often I hear teachers fall into the trap of expecting the *form* to do the work that only human discipline and creativity can do. I recall hearing one of the teachers in a summer workshop on portfolio assessment say to her group, "What if *it* doesn't work?" Portfolio assessment is not an *it*, with independent power. *We* have to make it work. The portfolio may provide a form, but the agency remains with the teacher's and student's *use* of the form. My argument is that form, whether for a poem or a portfolio, can be seen as a discipline that can be used to shape expression. It does not do the work of expression--that's the poet's and the student's role.

The type of portfolio that the sonnet metaphor best describes is the showcase portfolio. A showcase portfolio puts together samples of one's work, with the purpose of, for example, showing the range of

performance one has demonstrated, showing examples that meet a set of criteria for performance, or showing samples that one considers one's best efforts. It is usually created for a particular audience and purpose, as when an artist puts together a collection of samples to be considered for inclusion in a gallery exhibition. In the showcase portfolio, one's performance is focused outward, toward other persons, in the same way that literary works are written with a sense of the audience who will read them.

This external focus is one of the reasons why discipline is an issue with the showcase portfolio. In literature--whether sonnet or short story--all the parts must work together and have a relationship to the meaning that the author intends to be communicated to the reader. In the work world, a similar discipline is required for communicating about one's qualifications to a potential employer. Anyone who has ever received a rambling resume for a job application knows why that's important. I remember receiving a resume from a person who was applying for the position of director of a tutoring center. The resume was several inches thick, with attachments that showed everything the person had ever done--most of it not related to the position in question. Moreover, some of it was trivial, giving the impression the person did not value depth. In short, no discipline had been used in culling and sorting the potential entries to address the position.

The focus on a specific audience and purpose also shapes the requirements for kinds of samples one will choose to include;

audience and purpose also determine the criteria for quality of such a portfolio. For example, the portfolio used as part of the process for admission to student teaching at Alverno College specifies a number of entries that are considered "evidence" for readiness for student teaching--a videotape of a lesson with children or young adults, an analysis of that lesson, a sample of one's subject area focus, a piece of reflective writing, a sample of instructional materials one has created. The criteria make explicit the need to see integration of theory and practice, application of instructional principles, and sensitivity to diversity.

The quality of such a showcase portfolio is dependent upon thoughtful determination of the entries, given the constraints of certain types of entries required. In that it is like the sonnet--drawing flexibility and creativity from discipline. Of course, the portfolio is less rigidly defined than the sonnet--ordinarily there are no restrictions on size, media, or presentation and it allows for a range of formats.

One final point about the showcase portfolio. This type of portfolio, more than others, can be a relatively "high stakes" process. Something important may hinge upon it--admission to student teaching, selection for an art show, a job. Again, there is parallel to the sonnet or any literary work: is it good enough to publish?

I'd like to end this reflection on the portfolio as sonnet with another poem on the sonnet, this time from Keats, that says, in effect, let's take as much liberty as we need to in order to make the form serve its purpose. That's my advice, too, with respect to the portfolio.

On the Sonnet

If by dull rhymes our English must be chained.
And, like Andromeda, the sonnet sweet
Fettered, in spite of pained loveliness,
Let us find, if we must be constrained,
Sandals more interwoven and complete
To fit the naked foot of Poesy:
Let us inspect the lyre, and weigh the stress
Of every chord, and see what may be gained
By ear industrious, and attention meet;
Misers of sound and syllable, no less
Than Midas of his coinage, let us be
Jealous of dead leaves in the bay-wreath crown;
So, if we may not let the Muse be free,
She will be bound with garlands of her own.

John Keats 1819

The challenge for all of us engaged in the design of portfolio assessment is to assist our students to learn how to make their products more "interwoven and complete," weighing "the stress of every chord" to assure that the portfolio becomes an expression worthy of their--and our--time and effort. While the external focus implied in the image of portfolio as sonnet is important, other uses of the portfolio are equally and perhaps more important in teaching and

learning. The functions that I call *mirror* and *map* will illustrate these approaches.

Portfolio as Mirror

The mirror is a more obvious metaphor and I'm using it fairly literally to ask the question *how can the portfolio assist one to see oneself?* If we think about the ways in which one can *see* one's development, there are other images that come to mind as well. For physical development, an analog of the mirror is the photograph--we can go back through a collection of photographs to see our movement from infant to toddler to child to adolescent and on into adulthood. And most of us probably had a wall or a door in our house as we were growing up where our parents noted the changes in our height from year to year.

With intellectual, cognitive, and educational development the picture of one's growth over time is less apparent, especially if all you have as a record of that growth are test scores or grades. For some 20 years, the faculty at Alverno have been working with this question of making student development visible and accessible to the student, through video portfolios, written portfolios, and multimedia collections of work. We have discovered that there is a powerful impact on growth and self awareness when students can *see* their own development in speaking, in writing, in thinking and problem solving.

The ability to see development in these less visible areas requires clarity about what type of growth is important. Making clear

what students need to know and be able to do, not only in a specific assignment or class, but across the experiences that lead to a college degree, is a necessary base. It requires clear criteria about what will *count* as meeting the goal that has been set. And it requires samples of performance over time so that learners and their teachers can look at how they have grown and changed.

The *developmental* portfolio is the kind of portfolio I think of when I think of the portfolio as mirror. For example, when students look at their writing over time in relationship to the expectations for clear writing, they recognize the learning that has occurred and they consolidate that learning. Think of the possibilities for self awareness available implicit in a study of several drafts of the same paper or of several papers over the course of a class or a year. The impact of recognizing one's growth can also be present in the process of putting together showcase portfolios, when students review their work to choose the pieces they will include. As they complete their student teaching admission portfolios, our students often say "I didn't realize how much I had learned."

Because of its focus on development and progress, the developmental portfolio is relatively "low stakes." Students include more of a range of their work, showing the progress that they have made in a semester. They show the contrast between earlier drafts of a written work and the later, more polished, drafts. The goal is not selection of the best work, but a picture of the progress of learning.

The process of looking at one's development through a portfolio functions like a literal mirror--when one see one's own image or performance--the *literal* reflection sparks *internal* reflection. If this is what my speaking looks like, what do I want to work on so that I can improve? What do I want to celebrate as something that shows me at my best? What provides a picture of where I have come through the learning process?

Portfolio as Map

That last set of questions leads to the final image: portfolio as map. Clearly the map image is linked to the mirror--focusing on what you see can spark the question about where you want to go next. In the image of the map, a portfolio provides a framework for one to look at where next to set goals for one's own progress. The combination of samples of work and a sense of developmental criteria makes the portfolio a tool to talk about growth and opportunities to develop further. Criteria for performance, such as the Alverno criteria for speaking across the curriculum, guide the interaction between student and teacher.

Students often begin their work with speaking by writing out everything that want to say. While this may help organize their thoughts, it prevents them from fully engaging with the audience, because their eyes must follow the text or lose the flow of the words. Even if a student memorizes a written speech the barrier with the audience remains, for it's hard to break away from a prepared text to

deal with the questions one sees in the eyes of listeners. If a speaker does break away, then there is the difficulty of getting back into the text.

The description of the speaking ability at Alverno incorporates a quality called *speaking on your feet*. The criteria for this quality ask students to work at developing ways other than written text to prepare a speech. Faculty assist students to develop skill with a technique called mapping, outlining the flow of one's plan for a speech, without writing out every word. The map of a speech allows the speaker to interact with the audience, adjusting to the need for more clarification or less. The spontaneous nature of the delivery of a speech from a map provides a more natural voice pattern as well.

Students begin their careers at Alverno with a speech during the entry assessment process. Because this is the entry level, the criterion related to "speaking on your feet" requires only that you "speak for *at least one minute* before an actual or imagined audience." In practice, the students speak before the camera person operating a video recorder. They view their speech during the first weeks of their first semester and get a sense of where they're starting from. As they move through the curriculum, the criteria for this aspect of speaking become more demanding:

Level 2: "Speaks" on her feet (not reading or reciting) for a *recognizable portion* of the presentation

Level 3: "Speaks" on her feet for *most* of the presentation

Level 4: Gives the *consistent impression* of speaking *with* the audience

Criteria specify a total of ten areas of speaking that students work to develop across the curriculum, e.g., reaching audience through structure, reaching audience through support and development, reaching audience through media, and reaching audience through appropriate content. Each has been spelled out in four developmental levels; the faculty have called these levels pedagogically developmental because they provide guidance to the student as they practice speaking about what they are learning.

At Alverno, our students' portfolios (e.g., the video portfolio for speaking, the writing portfolio, a collection of materials from the student's teacher preparation program) are made up of entries gathered from assignments and projects over time. The kind of work assigned thus makes a big difference. If students have only been asked to write in one mode or to one type of audience (or no audience except the implied teacher as audience), their portfolios will provide less opportunity to find direction. The role of the teacher in providing assignments that focus on the goals of the course and the program and projects that stretch the students' learning is critical.

Self-assessment is the primary tool that makes the portfolio like a map. Using explicit criteria, students develop the ability to look at their own work and determine the strengths and weaknesses evident in a particular performance or across a set of performances. Students

begin to set goals to address the areas which need to be developed and to deepen in areas of strength.

When made integral across the curriculum, the process of self-assessment and goal setting becomes an habitual practice. For example, Alverno students create formal, showcase portfolios for admission to student teaching. But they do not see these portfolios as "completed." During student teaching, they update or change entries to keep up with their current growth. They then begin to use the portfolio as a framework for ongoing professional development planning--where do I want to develop next? And they begin to set their own criteria for the quality they seek.

The power of seeing the portfolio as map is to see that reflection can bring together the inner self and the outer world. The portfolio, as the theme of this conference suggests, encourages reflection--helping me to see my self and my strengths and weaknesses, but also to look at the sources for my growth in the larger world, especially the world of professional practice.

Reflection is not an automatic result of taking courses in the liberal arts. We need to teach the process of reflection, particularly the kinds of questions that spark reflection. At Alverno, we ask our students a number of questions to guide the development of reflection: "What connections can I make between what I'm learning in one class with what I'm learning in another?" "What questions do I have about my learning?" Of course, the initial response of many is that "I don't

have any questions." But when they hear the questions of others, they begin to realize how they might look more deeply.

Students don't initially know what to do with a sample of their own performance, such as a speaking performance. So we use explicit criteria to teach the process of self-assessment as a first step toward reflection. We also model the kinds of questions they can ask about performance: "What did I like best about this performance? What would I do differently if I could do it over or when I do it again?" Over time, students gradually take responsibility for their own reflection, using the criteria provided by faculty. But they also begin to add additional frameworks to guide their reflection, drawing upon their developing philosophy of education. Ultimately, the highest "stakes" are those we set for ourselves. The portfolio as map captures the sense of a process made a habit of mind, of a commitment to ongoing professional growth.

Portfolio as Sonnet, Mirror, and Map

Just as Wordsworth and Keats questioned the sonnet and probed the ways it could capture the expression of the poet, we need to continue as educators to question the portfolio and probe its potential. My fear is that too much attention may be paid to the form of the portfolio, without sufficient care given to its power for learning. That power is unleashed when teachers see the portfolio process as dependent upon the clarity of goals for student performance through their work in the liberal arts and professional education curriculum,

when they attend to the quality of the assignments, projects and assessments that they provide for their students, and when they take the responsibility for teaching students the process of reflection and self- assessment.

Both the sonnet and the portfolio are, indeed, a "scanty plot of ground." It's what we do and how we use the portfolio that can make it a rich resource for reflection and growth.

Portfolios: The Unknown, the Struggle and the Learning

Diane D. Allen, Ed.D.
University of North Texas

Portfolio use as an alternative to traditional grading schemes has become more popular at all levels of education (Valencia, 1990; Aitken, 1993; Cirincione & Michael, 1994; Ford, 1994). What makes portfolios more attractive to educators is that teachers and students initially share responsibility for learning and assessment (Valeri-Fold, Olson & Deming, 1992) with students eventually taking control of their own learning (Vavrus, 1991). Portfolios provide both teachers and students with a means of documenting students' progress toward learning goals (Ford & Olhausen, 1991). In addition, portfolios often provide needed motivation through improved attitudes and self-esteem to help students make continued progress (Frazier et al., 1993).

As we prepare future teachers it is important that we engage them in authentic experiences with portfolio self-assessment. They must experience, first hand, the power that comes from assuming the responsibility of their own learning (Stahle & Mitchell, 1993). Analyzing and directing their own learning makes them more reflective teachers in the future. As Wagner, Brock and Agnew found in their study (1994), portfolios "provided the students with numerous opportunities to engage in reflective thinking, to interact with their peers, to make informed decisions, and to set personal learning

goals..." (p. 674). Having experienced all of the frustrations, struggles and questions that arise from self-assessment, preservice teachers will be better prepared to support and facilitate the same kind of learning in their own students.

This paper will share the experiences of seventy-six undergraduate preservice elementary teachers and one professor as they struggled with the development of personal portfolios.

The Classes

Reading Assessment and Evaluation is a junior level undergraduate course designed for those students who wish to specialize in reading education as a part of their teacher preparation program. All students in this course have had an introductory course in reading instruction and either a language arts course or a content area reading course earlier in their program. Several of the students completed personal literacy portfolios as a course requirement in one of the earlier courses.

The focus of Reading Assessment and Evaluation is the development of an understanding of alternative on-going assessments for future classroom teachers to use to measure the progress of all students in their classes. To meet the objectives of the course, students learn to use a variety of literacy assessment techniques, including miscue analysis, retellings, think alouds, and portfolios. Assessment is approached as one part of a regular instructional cycle; that is, assessment informs instruction as well as measures progress

toward personal and content literacy goals. A ten hour practicum in which the preservice teachers work one-to-one with an elementary student, either at an elementary school or at the university reading clinic, is part of the course requirements. During the practicum, the students are expected to demonstrate an understanding of the various assessment techniques by planning and implementing them in an appropriate manner.

As indicated by the course syllabus, the preservice teachers' final grades in the Assessment class were determined by an evaluation of their work with the elementary students as measured by lesson plans and reflections, a mid-term exam, a final exam, portfolios assembled for the elementary students, and a personal portfolio that would indicate knowledge of literacy assessment for the elementary classroom. The students received a specified number of points for each activity and, then, a letter grade determined by a percentage of work completed satisfactorily.

Although all of the assessment techniques were modeled during the course, the development of student portfolios was often the most vague and limited. Most of the resulting portfolios resembled work folders rather than process oriented assessments. The preservice teachers had too little experience with and knowledge of portfolio assessment to create the process oriented document which was expected. To compound the concern for the students' apparent lack of understanding regarding portfolios, I realized that the course assessments of the preservice teachers for this particular course did

not provide them with an appropriate model of literacy assessment. The personal literacy portfolio component of the course was developed in response to both the need to provide the students with an authentic personal model of assessment and to align the instruction in the course to the professor's personal philosophy of literacy assessment.

Getting Started

The objectives that are outlined on the course syllabus are derived from the Standards for Reading Professionals (IRA, 1992). These standards are used by the National Council for the Accreditation of Teacher Education programs as the criteria for approving reading curricula in university teacher preparation programs. For this course, these objectives were the basis for the development of class goals for individual portfolios. During the second class meeting students were assigned to groups and each group was instructed to combine and/or reword objectives to develop goal statements. These goal statements were further revised and refined over successive class meetings until each class had achieved a set of goals for the class. Figures 1 and 2 give the two sets of goals which were developed by the individual classes.

The rubric for the evaluation was initially developed by the instructor because the development of goals had taken a large share of class time. A rough draft of the criteria was presented to each class, and students made suggestions for changes.

Collecting Artifacts

The major concern from the students' perspective was what to include as evidence in the portfolio. The class was designed to provide numerous opportunities for each student to achieve the goals; however, these opportunities were not always evident to the students. I refused to tell the students exactly what to include in the portfolio because I felt the artifacts each student chose should reflect his/her own understanding and growth related to the goal. However, to combat growing frustration and confusion, we instituted group and peer sharing of portfolios. Students were asked at two different times to bring artifacts with cover pages stating the rationale for selection from their portfolios. These were shared within small groups or with a trusted peer who provided feedback regarding the appropriateness of the artifact and the clarity of the rationale.

Evaluation

Throughout the semester I attempted to ascertain the effectiveness of the portfolios for demonstrating progress toward goals. As frustrations and confusions mounted, this was sometimes difficult. Often statements in class regarding the portfolios, however, gave some insight into the students thinking. For instance, shortly after the mid-term exam one student asked why the students should take a final exam if a portfolio was supposed to show a student's real growth and understanding of assessment. This statement led to discussions in both sections regarding the role and need of a variety of

assessments. Eventually, the students negotiated to combine the points for the final with those for the portfolio with the student deciding the specific percentage allotted to each task. Students were given the option to put all of their points in the portfolio and to eliminate the final; however, the portfolio was required.

At the end of the semester each student brought his/her portfolio to a conference with the instructor. The student was asked to (1) talk about the organization of the portfolio and the selection of artifacts; (2) choose the best area and the most difficult area and explain; and (3) give themselves a grade. Most students were understandably nervous about this conference because it was so important for their overall grade. For me, this was the most difficult part of the process because I knew this would be an indicator of the feasibility of using portfolios as assessment tools.

I was so impressed with the variety and quality of the artifacts chosen by the students. Their choices indicated a willingness to extend their learning beyond our classroom and the practicum experience. They read widely in professional journals and in trade books. They visited other professionals and conducted interviews. Several developed philosophy statements or revised statements from previous coursework. Mostly, they took the work they were doing with the children as indicators of their own growth and knowledge about literacy.

Students were reluctant to give themselves a grade on the portfolio. Some felt that one grade could not measure the effort

involved in the creation of the portfolio; others were simply afraid of assigning the "wrong" grade. The students had been given the option of taking a final exam in lieu of some of the points assigned to the portfolio. Only one person chose that option. In the end, students' self-assigned grades ranged from A to C. I had reserved the right to disagree with their evaluation; this only occurred in one instance, and I changed that person's grade to a higher one.

For all of us, the development of portfolios was a learning experience that could not be measured with a single unit. So much learning occurred. The best evidence of this comes from the students in their summaries of the project. Some of their comments follow.

> I think that I have met all of the goals as set by our class at the beginning of the semester and in doing so, I have gained valuable experience in instruction and assessment. Perhaps the most beneficial aspect of all, is the feeling of confidence I have gained as a result of my interactions and new knowledge. (D.B.)

> I made out my own personal goals for my portfolio. I had a lot of different things I wanted to complete by the end of the semester. The one thing I am the most proud of is my reading this semester. I never really enjoyed reading. Reading four books during the

semester is a great accomplishment for me, especially with my work load this semester. (S.H.)

Future Directions

The development of individual portfolios is a difficult process at best. The instructor must be willing to devote numerous hours inside and outside of class. I was surprised at the amount of time required of me. With seventy-six students I spent approximately 25 hours in conferencing, and I could have easily spent more. The students indicated that portfolios also required a great deal of time and effort from them. Most said they worked harder on this project than any other they had completed at the university. The final evaluation, however, was that the amount of learning that occurred was equal to or surpassed the amount of time required.

Another frustration for me was dealing with the constant questioning and complaining of the students as they progressed. A faculty portfolio interest group provided needed support and encouragement to me, especially on those days when I wanted to just quit. Once the students gained some confidence in their activities, the complaints and my frustration subsided.

In the future, I will do some things differently. First, I will organize more peer and instructor conferences. Being able to share and get feedback lessens student anxiety and creates a trusting environment. Secondly, I would share some examples with the students. Most students lack a concept of what a portfolio can be, and

examples may have given them a vision. Thirdly, I would take away the option of a final. In the end I realized that the students did not need the final as a crutch. Their portfolio was a much broader measure of their learning. Lastly, I would develop a better set of criteria with more student input. The criteria which we used were not specific enough for the task. Students came to the final conference with revisions to the criteria, which made them more useful on an individual basis. To me this was a measure of how much the trust between us had grown; they were willing to take on some of the responsibility for evaluating their own learning.

Summary

Two groups of preservice teachers developed portfolios to demonstrate their knowledge related to class determined goals. Frustration, confusion, and learning marked the semester. These future teachers experienced first-hand the kinds of questions and anxieties their own students will encounter with portfolios. They also experienced how powerful taking control of one's own learning can be.

Figure 1
Goals for 4850.002

Goal 1	to have a general understanding of assessments and an awareness of various assessment techniques
Goal 2	to create and implement a student portfolio using formal and informal on-going assessments
Goal 3	to create a supportive, culturally aware, and risk-free environment
Goal 4	to create a teaching style with awareness of schema, student ability, and appreciate student individuality
Goal 5	utilize our experiences through the semester to gain knowledge and empower ourselves for future goals
Goal 6	to demonstrate an ability to skillfully communicate the goals involved in the reading process as well as communication for effective interaction

Figure 2
Goals for 44850.003

Goal 1	understand the different forms of assessment, how they can be used in the classroom and the importance of them
Goal 2	use and evaluate a variety of assessment techniques, including portfolio, for the successful instruction of literacy
Goal 3	develop written and oral skills to encourage and enhance communication with students, parents and other faculty/ support staff
Goal 4	identify strategies necessary in establishing a positive environment that will maximize student learning
Goal 5	determine appropriate instruction, evaluation and assessment techniques with consideration for the social, emotional and cultural differences that shape students' growth.
Goal 6	gain the necessary skills for successful self-evaluation

References

Aitken, J. E. (1993, April). Empowering students and faculty through portfolio assessment. Paper presented at the Annual Meeting of the Central States Communication Association, Lexington, KY.

Cirincione, K. M., & Michael, D. (1994). Literacy portfolios in third grade: A school-college collaboration. Reading Horizons, 34, 443-464.

Ford, M. P. (1994). Establishing a portfolio culture in teacher education courses: Providing an alternative context for learners. Paper presented at the meeting of the IRA World Congress on Reading, Buenos Aires, Argentina.

Ford, M. P., & Olhausen, M. M. (1991). Portfolio assessment in teacher education courses: Impact on students' beliefs, attitudes and habits. Paper presented at the meeting of the National Reading Conference, Palm Springs, CA.

Frazier, D. W., Palmer, P. S., Duchein, M. A., & Armato, C. (1993). Preservice elementary teachers' evolving perceptions of portfolio assessment. In D.J. Leu & C.K. Kinzer (Eds.). Examining Central Issues in Literacy Research, Theory and Practice. Chicago: National Reading Conference.

International Reading Association (1992). Standards for reading professionals. Newark, DE: International Reading Association.

Stahle, D. L., & Mitchell, J. P. (1993). Portfolio assessment in college methods courses: Practicing what we preach. Journal of Reading, 36 (7), 538-542.

Valencia, S. (1990). A portfolio approach to classroom reading assessment: The whys, whats, and hows. The Reading Teacher, 43, 338-340.

Valeri-Gold, M., Olson, J. R., & Deming, M. P. (1992). Portfolios: Collaborative authentic assessment opportunities for college developmental learners. Journal of Reading, 35 (4), 298-305.

Vavrus, L. G. (1991). Connecting literacy assessment and instruction through student portfolios. Paper presented at the meeting of the National Reading Conference, Miami, FL.

Wagner, C. L., Brock, D. R., & Agnew, A. T. (1994). Developing literacy portfolios in teacher education courses. Journal of Reading, 37 (8), 668-674.

Subject Matter Assessment of Preservice Elementary Teachers: The San Diego State University Liberal Studies Assessment Portfolio

Phoebe E. Roeder
San Diego State University

Teacher preparation in California is normally a two stage process involving completion of a four year undergraduate degree and a fifth year credential program. Subject matter competency may be demonstrated in one of two ways: students may complete a diversified major approved by the California Commission on Teacher Credentialing which includes an assessment component or they must pass the Multiple Subjects Assessment for Teacher (MSAT) examination. At San Diego State University (SDSU), students completing the approved diversified Liberal Studies major prepare an assessment portfolio during their junior and senior years. The committee in charge of the major chose portfolio assessment for three reasons: first, a portfolio seemed to be the only feasible mechanism for assessing as many as 250 students per semester in times of limited resources, second, building a portfolio would be a valuable learning experience for the students, and third, the portfolio would provide feedback about the program. For a thoughtful review of research on issues related to portfolio assessment see Herman and Winters (1994).

Development of the Guidelines

The guidelines were developed during the spring of 1992 with input from a variety of constituencies: the coordinator provided advice about the basic format; the chair of Teacher Education identified student characteristics which the Teacher Education Admissions and Retention committee would find helpful if and when portfolios became a part of the admissions criteria; and colleagues with experience in portfolio development provided advice about structure and types of entries. Finally, faculty who teach in the program provided a wide variety of samples and suggestions specific to their own subject areas. A diagrammatic summary of the portfolio requirements is provided in Figure 1.

The requirements are divided into two major parts: "Who You Are" and "What You Have Learned." The "Who You Are" section was included so that students would have an opportunity to document the academic and extracurricular experiences which are unique to each of them as individuals. In the Introduction, students include their advising worksheet which summarizes their coursework. For each requirement, the student's adviser records which course was taken, where (SDSU, community college, etc.), when, grade earned, and units. Thus the advising worksheet provides an organized overview of the student's work. The Introduction also includes a personal history and resume in which students describe their background and their experiences with children and in leadership positions. Liberal Studies advisers encourage students to work as classroom aides, camp

counselors, before school/after school supervisors, and to gain volunteer experience. Since this requirement is very similar to the essay required when the student applies to the College of Education, students should be able to use it in both places with minimal modification. The resume was added so that the reader would know when and where the various activities mentioned in the personal history took place.

The "Who You Are" section also includes an explanation of why the student chose a given specialization and one or more specialization samples. A specialization consists of twelve upper division units taken in one area of interest. Students entering bilingual credential programs normally complete the Spanish specialization. The Conclusion section of the portfolio includes the "Values and Attitudes" essay and the "Capstone." The latter gives the student a chance to assess the Liberal Studies program and the portfolio process.

The main body of the portfolio consists of thirteen samples selected from courses. Signatures are required on samples from courses taken during or after the semester in which the student takes Liberal Studies 300, the course which introduces students to the upper division major. Each sample is introduced by a reflections page. This page lists the course the sample is from, professor's name, and date. It also allows the student to comment upon the project. In several cases, reflections pages ask the student for specific information. For example, for the second Language Arts entry where students include a paper and a rough draft, they are asked to discuss

the process they use in writing a paper. Our goal is to stimulate the students to reflect upon their own learning experiences and thereby develop an appreciation of what is involved in learning.

In addition to the required samples, students may choose to include optional Free Choice entries. Most students have one or more unique experiences which they wish to share. The Free Choice entries are introduced by an Explanation page which provides additional information so that the reader understands why the sample was included, how it fits into the given category, and how it helped the student grow as a liberally educated person.

The four connections essays are the test part of the portfolio. These three to five page essays reveal a lot about a student's ability to organize ideas and draw connections to him or herself as a future citizen in a complex world and as a future teacher. The first essay is a short research paper which deals with a national or world issue. The second is also a short research paper, but it asks the student to draw a connection between two subject areas. Since early samples of these two essays tended to lack content, we now insist that students include references and encourage them to include quotes, statistics, and examples which support their arguments. In the third essay, students are asked to reflect upon their own learning experiences by comparing how they learned in two or more courses in a given subject area. Students frequently compare how they learned mathematics in high school and how they have learned math in the special math sequence which is a part of the Liberal Studies major. For many of

them, understanding math did not occur until they started working with manipulatives, analyzing what it means to multiply, discussing concepts with the peers, thinking about problem solving strategies, etc. In the fourth essay, students are again asked to think about their own learning, but this time they must consider how they would teach a lesson to children. Since many students enjoy their creative drama class, they frequently suggest dramatizing a lesson in some subject area which they learned about through a traditional lecture mode. The four connections essays must be written in different subject areas. They allow the students to think, pull together ideas, and reflect. Students find them time consuming and challenging, but interesting to do.

Building the Portfolio

Students become aware of the portfolio through orientation programs, the Liberal Studies newsletter, meetings with their adviser, and other students. Transfer students learn about it from advising worksheets provided by the local community colleges. The coordinator sent sample advising worksheets to community colleges soon after development of the portfolio guidelines. A sample portfolio was developed as a model.

Since at least half of all Liberal Studies majors transfer to SDSU at the beginning of their junior year, students are officially introduced to the portfolio in Liberal Studies 300. With the exception of the physical education lesson or unit plan, all of the samples can be

selected from courses taken at the upper division level. Students who are unable to take Liberal Studies 300 at the beginning of their junior year are encouraged through advising and the newsletter to buy the guidelines and to begin saving samples. The coordinator visits the LS 300 class twice during the semester to explain the requirements and further introduce some of the specifics. The students also prepare their first two samples in this course: the liberally educated person essay and their early field experience write-up.

During the last two years at SDSU, students collect samples including professors' signatures. They are encouraged to write reflections pages for the samples they intend to include soon after they complete each class. Help is available through workshops put on by the University Advising Center and through individual advising. Students are also encouraged to have their adviser give them feedback on specific samples and connections essays.

Assessment

The portfolio is due in the Test Office on or before the fifth Monday of the semester during which the student intends to graduate. Before submitting their portfolios, students must meet with their adviser who checks off each requirement and approves the portfolio for submission. Portfolios are judged Commendable, Satisfactory, or Needs Improvement. The timing is chosen so that the student will do most of the work before the semester begins, so that the portfolios can be returned early enough that the College of Education could use it

or the review sheets as part of their admissions criteria, and so that a portfolio which are judged Needs Improvement can be revised and resubmitted before the end of the semester.

Due to the size of each portfolio, only two of the seven subject areas are read in detail: one which includes a Type 1 or Type 2 connections essay and a second which includes a Type 3 or Type 4 connections essay. The contents of these two subject areas are read by two different subject area specialists while the overview is done by a third. Scoring rubrics for each of the above areas have been developed. A system of stickers with a different color for each subject area has been developed so that readers can easily select portfolios in their subject area. The reader who does the overview tallies the scores for the Type 1 or 2 area, Type 3 or 4 area, and overview and marks the Scantron sheet Commendable, Satisfactory, or Needs Improvement. If the portfolio is weak in a given area, the reviewer writes suggestions at the bottom of the review sheet. The Test Office sends letters to the students notifying them of the results, prepares a master list of the results to send to Admissions and Records, and makes photocopies of the title page and four review sheets to serve as a permanent record for each student. Students whose portfolios are judged Needs Improvement are asked to see their adviser for help in remedying problem areas.

Making the Process More Manageable

In the two years since the initial guidelines were developed, a number of changes have been made to make the process more manageable. First, the introduction to the portfolio which occurs in the LS 300 class has been improved and expanded. For example, in spring, summer, and fall 1994, when the coordinator visited the LS 300 class for the second time, she had the students complete a practice exam which was discussed later in the period. The "exam" forced the students to think about the different requirements, what made a quality entry, and how to handle the logistics.

Second, the instructor of Liberal Studies 300 has gradually modified the course. Now the students not only complete two samples but also write drafts of three other entries that initially they had to complete on their own: a type 2 connections essay, the "Values and Attitudes" essay, and a preliminary "Personal History."

Third, expectations have been clarified. As criteria were developed for judging the first portfolios which were submitted, the expectations were shared with the students both by handing out sample scoring rubrics and by explaining them in the Liberal Studies Newsletter which is mailed to students twice each semester. In addition, a letter from the coordinator containing important information and deadlines is now sent to each student with his/her graduation evaluation and the deadline for submitting the portfolio to the Test Office is published in the class schedule.

Finally, several approaches are being used to increase opportunities for students to obtain help. The sample portfolio and a copy of the first commendable portfolio are now available in the Reserve Book Room of the main library as well as in the University Advising Center library. Workshop times initially proved difficult for students with limited free time. Currently students may walk-in any time between 1 and 4 PM on alternating Wednesdays and Thursdays and ask for a portfolio workshop. Finally, in spring 1994, for the first time, an optional credit/no credit class was offered which focused on portfolio development. This course provides the additional help needed by students who might have difficulty developing the portfolio independently.

Preliminary Results

The first class which was introduced to the portfolio in spring 1992 is now finishing requirements for the major. As a result, we anticipate a dramatic rise in the number of portfolios submitted. As shown in Table 1, a total of 44 portfolios have been submitted as of fall 1994.

Table 1

Number and Quality of Portfolios Submitted

	Spring 93	Fall 93	Spring 94	Summer 94	Fall 94
Commendable	1	0	2	1	3
Satisfactory	1	3	4	2	11
Needs Improvement	0	1	2	4	9
Total	**2**	**4**	**8**	**7**	**23**

Currently, the major problem is getting the students to recognize that developing a portfolio is a two year project. Most of the portfolios judged "Needs Improvement" have earned that rating because the student didn't allow enough time to complete all the requirements carefully and didn't ask for advice on the connections essays. Some of these students did not read the newsletter and thus were not aware that the type 1 and type 2 connections essays require supporting evidence and references. (The original guidelines didn't make this explicit.) This problem should resolve itself as students who have completed portfolios share their experiences with students who will have theirs to do.

Of the seven portfolios which needed improvement prior to this semester, six were resubmitted by the end of the same semester and

judged satisfactory; the last was submitted the following semester and judged satisfactory. How to deal with students whose portfolios show a lack of ability remains a problem. Several students who have low grades and thus do not qualify for teaching credential programs have been allowed to graduate without a portfolio. As graduates of the not-teaching version of the Liberal Studies major, they would have to pass the MSAT examination in order to satisfy subject matter competency if they ever decided to apply to a credential program.

The Response of the Students

The following quotations from the "Capstone" sections of four of the portfolios submitted this fall give a flavor of the student response.

> I have to admit that building my portfolio--even under the trying circumstances with which I had to labor--gave me an opportunity to express facets of myself that no other means of evaluation could ever discern. (JL Fall 1994 almost blind)

> I enjoyed seeing the progress I had made as a student and as a person. There was a lot of writing required to build this portfolio and I did not really enjoy the actual process of writing so many essays. I am, now that it is finished, proud of what I accomplished. (RL Fall 1994)

> I did not enjoy having to do the reflections pages . . . . A few reflections I feel were necessary, but not one for each category. (JE Fall 1994)

> I was . . . surprised by the amount of information I remembered. Mostly I liked the fact that it made me start thinking more like a teacher. I would definitely have to say that the part I enjoyed least was the fact that I did not leave myself enough time to do the papers at my leisure. (HM Fall 1994)

These comments reflect the magnitude of the project and the fact that many students did not spread their efforts over their junior and senior years. A number of students have commented about their own organizational abilities, some pleased and others bemoaning the fact that they tend to procrastinate. Many students feel that the number of reflections pages is excessive and that they are writing similar comments on more than one reflections page. The portfolio committee is considering whether or not to reduce the requirement to one reflection per section and, if so, how best to notify the students.

Effects of the Portfolio on the Curriculum

While the portfolio is time consuming for students, advisers, and the coordinator, it has provided valuable feedback about the Liberal Studies program. It has documented the strengths and weaknesses of

the students. For example, the students write about a variety of experiences they have had working with children or in leadership positions. This type of experience is crucial in terms of their ultimate success in entering credential programs and getting teaching jobs.

The portfolio has also provided feedback about the courses which Liberal Studies students take. The samples students include help the coordinator and committee understand what is being taught in the various courses--and what isn't being taught! In three specific cases, lack of samples has prompted the coordinator to speak directly with the instructors of certain courses.

Unfortunately, the portfolio entries also show that a number of students still need to improve their ability to write well. Punctuation and organization frequently could be improved. Tense and number agreement sometimes are problems especially for those students for whom English is a second language. A need for greater emphasis on writing across the curriculum was a topic at a recent faculty meeting.

Early in the development of the program the coordinator held a workshop and sent letters to faculty who teach special Liberal Studies courses and other courses taken by Liberal Studies majors to explain the portfolio requirements and ask professors to sign samples. In a number of cases the letters have prompted increased communication and, in a couple of cases, facilitated problem solving. Thus, the portfolio is providing a reason for discussion and collaboration which ultimately may lead to improvements in the curriculum.

Challenges and Plans

The first challenge is to get the students to complete their portfolios in a timely manner. This problem should take care of itself as students learn from other students that the portfolio takes time to complete. As the number of students needing help increases, we should be able to offer workshops on specific topics at a variety of times. Ultimately we will probably also have group check-off sessions.

The second major challenge is to develop a cadre of portfolio readers. The goal is to enlist a group of individuals who will enjoy the camaraderie of reading together and sharing experiences over lunch. This type of approach has been used successfully for the SDSU Upper Division Writing Examination.

Reliability of the assessment procedures needs further evaluation. This summer the coordinator read most of the selections which were evaluated by the official readers. She was pleased that her informal assessments agreed very closely with the formal evaluations of the official readers. To increase reliability of future readings, the coordinator has collected samples of both high and low quality from each subject area. These will be used to assess reliability during training sessions for new readers. Of even greater concern are variations which arise due to differences in quality between the subject areas chosen. The overview is included, in part, so that an experienced reader can spot check a variety of areas and, if necessary, ask for an additional reading of a third subject area in borderline cases.

Reliability of assessment will receive continuing analysis during the following years.

The Liberal Studies Assessment Portfolio is unusual in that it allows students to bring together and draw connections between subjects and ideas which have been studied in a variety of courses over two or more years. It is a demanding project both for those preparing portfolios and for those administering the program. Early results suggest that it is providing a satisfactory assessment of subject matter competency and, perhaps more important, a valuable educational experience for the students both in terms of their future roles as active citizens in a complex world and as educators of our young people.

Reference

Herman, J. L., & Winters, L. (1994). Portfolio research: A slim collection. Educational Leadership, 52, 48-55.

Figure 1. Overview of the SDSU Liberal Studies Assessment Portfolio requirements.

INTRODUCTION		**SPECIALIZATION**
Advising Worksheet	**<-WHO YOU ARE->**	Depth of Study
Personal History		Specialization
Professional Resume		Sample
The Liberally Educated		**CONCLUSION**
Person		Values & Attitudes
		Capstone

SAMPLES/ENTRIES		**FREE CHOICE**
13 Samples from	**<-WHAT YOU HAVE**	**ENTRIES**
Courses plus	**LEARNED->**	0 TO 9 Special
Reflections Pages		Samples
also Enjoying Science		plus Explanations
& Bibliography		(Optional)

CONNECTIONS ESSAYS

Essay 1:	Essay 2:	Essay 3:	Essay 4:
Connection to	Connections between	Connection to You	Connection to You
Global Issues	Two Subject Areas	as a learner	as a teacher

College Entries Into Portfolio Assessment
Why, How, and What to Watch Out For

Jerald Hauser, Ph.D.
St. Norbert College

Portfolio Foundations and Context

The faculties of several academic disciplines, including Education, at St. Norbert College, in DePere, Wisconsin, are searching for alternative student assessment models. The quest involves more creative and consequential ways to assess breadth and depth of student learning and thinking. Portfolios, as an option to standardized and teacher-composed tests is on the increase and part of a larger movement variously called "True Testing" or "Authentic (alternative) Assessment" (Wiggins, 1989, 1993). Use of portfolios at elementary and middle school levels is already a fact and continues to grow. Less well established, and still in doubt, is portfolio assessment in high school and college curriculums.

Portfolios encourage students to demonstrate many kinds of talent by creating and collecting artifacts meant to represent effective thinking skills, positive value states and additional accomplishments. A special target of true testing, including portfolios, is standardized testing begun early in the twentieth century and still alive, kicking and profitable, to educational testing and publishing industries. But discontent with such impersonal and "inconsequential" assessment procedures (Sternberg, 1984) can be condensed into the following areas of concern (Winograd and Denese, 1992).

1) Traditional tests of what it means to be literate are seriously flawed. The view of literacy as knowledge memorized or understood in the abstract has become suspect in lieu of newer descriptions. Recent views represent literacy as a complex of functional talents applied to real, important and "in-context" problems (Wiggins, 1989, 1992). Traditional assessments are criticized for testing esoteric skills out of real learning and thinking contexts, and ignoring the existing interests, talents and motivations of students (Wixson and Peters, 1987).

2) Traditional tests antagonize rather than motivate students. "When success in school is reduced to gaining high scores on paper-and-pencil tests, students compete against one another and the losers experience increased anxiety, low self-esteem, cynicism about teachers and school, and devaluation of education" (Paris, Lawton, and Turner, 1993, pp. 37-38). Too much losing on such tests creates an underclass of uncaring and unsuccessful student aliens.

3) "Traditional tests often provide results of limited use to teachers; and are subject to misuse and misinterpretation by policy makers" (Winograd, Paris, and Bridge, 1991, p. 38).

Portfolios as "Enabling Work"

Various portfolio efforts should advance student skills in areas of work planning, task prioritizing and logical thought. Such mental activities "enable" students beyond strictly academic endeavors

because they are needed and exercised in real world careers and social settings (Sternberg, 1984). "Enabling work" is:

> "...designing and carrying out experiments; working with other students to accomplish tasks; demonstrating proficiency in using a piece of equipment or a technique; building models; developing, interpreting and using maps; making collections; giving speeches; participating in oral examinations; developing portfolios; developing athletic skills or routines, etc." (Allen, 1994, p. 4)

Enabling work in classrooms is work that is important in out-of-classroom jobs and careers. The following are conceptual descriptions of enabling work that can occur in the process of portfolio creation:

- relevant work or work perceived by students as being important ("consequential") and worth doing because it will need to be done well in their future out-of-classroom lives.

- in-context work, or student work perceived as being part of something larger and more important than itself. This means that traditional in-classroom work and homework would be contextual and holistic instead of insulated and fragmented.

- self-evaluative work, or student work perceived as shaped by a student's own scrutinies and criticisms. This seems superior to the more static practice of students routinely submitting work, then waiting for teacher criticisms.

- metacognitive work, or student work carefully monitored by themselves and requiring sharp decision-making consciousness.

During teacher or peer interviews, or as written compositions, students might be asked to describe work attitude, states-of mind, planning, and time allocation.

- peer-collaborative work or student work accomplished through interactive planning and labor ventures. Small and large group communication and physical work energies are necessary for such work to be successful.

- engaged work or student work selected because of a perceived personal dimension or connection. For example, a portfolio should motivate intense and extended student work efforts because of the personal reflection devoted to it. Such work would be defined by extended dedication and perseverance over weeks, months and even years. During teacher or peer interviews, students might be asked to describe their efforts, successful or not, as they assembled portfolios.

- self-directed work or student work guided by self-initiated goals, time allocations, material selections, and completion plans. Arbitrary teacher management is significantly reduced.

- affectively-motivated work or student work energized by sustained enthusiasm and positive feelings that the work and its purposes are attractive and self-enhancing.

Portfolios, as one form of enabling work, are becoming the alternative assessment choice for a multitude of elementary and middle school teachers (Camp, R. and Levine, D., 1991). These teachers perceive portfolio planning and creation as involving students in a rich variety of cognitive, affective and pragmatic work

opportunities. Conversion to portfolios among elementary and middle school teachers is also spurred by national professional journals and organizations including, Education Leadership (ASCD) and The Kappan (Phi Delta Kappa) which strongly promote portfolio virtues. Though acceptance among high school and college teachers has been less apparent and publicized, logic suggests that change toward portfolios, at those levels, may increase due to the increasing population of portfolio-shaped students now moving into secondary and higher education.

Portfolio Descriptions

Portfolios can be final collections of student work, selected and managed by the students for purposes of self-evaluation or self-representation to other evaluators. Such portfolio efforts are Best-Work Portfolios. They contain final draft or product entries meant to portray the best academic, experiential, and professional work signifying right of graduation, certification, or employment readiness. Only "best pieces of work" (Hauser 1993) should be included in this prototype.

"Developmental Portfolios" or the assembling of a "...large collection of materials, documents, pictures, papers, letters, certificates, lesson plans, projects, student work samples, audio and/or video tapes..." (Uphoff, 1989, p. 1) have gained increasing acceptance by educators. The belief is that such artifact collections holistically portray student journeys toward various competencies. It

is normally recommended that such diffuse collections will eventually be reduced and shaped into less hefty and more focused best-work portfolios. Also suggested is that such artifact collections should be continued well into professional employment (Uphoff, 1989).

A third portfolio variation is the "Lab or Workshop Model" where students seek assistance and evaluation from peers or peer tutors. This approach speaks to certain doubts raised about portfolios, including how such lengthy and complex products will be efficiently judged. The purpose of lab portfolios is to enter work in folders and seek feedback and correction from other lab peers prior to teacher input. Suggestions by peers are applied, then submitted to teacher evaluators. Use of lab evaluation may decrease teacher evaluation time in that certain corrections and improvements will have already been made by student peers. This may be good news to high school and college faculty hesitant to adopt portfolio assessment from concern about additional time and energy burdens.

> "The portfolio requirement insures that students work at the lab on a weekly basis. Our students' papers and revisions must be placed in their portfolios in the lab by the dates specified on returned papers. This means students must make appointments with tutors to discuss and revise their work. No papers are filed unless lab tutors have gone over revisions with students; then the original and all drafts are placed in the portfolio. (Hileman and Case, 1991, p. 175)

Portfolio Enthusiasms

Interpretations of why teachers are eagerly embracing portfolios represent intuitive estimates by this writer and should not be portrayed as research derived principles. I believe that growing teacher enthusiasm for portfolio assessment exists for a potpourri of reasons, among them being that portfolios:

- offer students a free yet structured form of self-expression. Portfolios are carefully planned and even scripted by students, yet will have widely varied contents and appearances that uniquely represent student creators.

- encourage consequential student efforts that make student creators intensely conscious of a work process that collection of and reflection about artifacts will produce. Metacognitive energies occur.

- motivate student's head, heart, and hand work. To express it more academically, portfolios engage cognitive, affective, and psychomotoric student efforts. Psychomotoric? Yes, in that students go through a very sophisticated artifact inclusion process which gradually produces a visually attractive product with cognitive and physical heft.

- stimulate purposeful student analysis and learning reinforcement. As portfolio creators search for appropriate artifacts to represent various gains in appreciation and comprehension, they revisit and rethink facts and concepts of discipline areas while deciding on appropriate artifact inclusions.

- stimulate full-bodied productions that contain selected writing samples (i.e. cover letters and position papers) graphics, published journal or newspaper articles, descriptions and photos of creative devices, samples of best-work transparencies, videotapes, and an array of other artifacts. Portfolios can portray students as complex and effective classroom, school, campus and community citizens. Students as curricular and co-curricular participants are powerfully represented in portfolios.

- represents students' "habits of mind." (Wiggins, 1989) Qualities of inquiry, curiosity, imagination and creativity are on display in portfolios. Skills of artifact selection, sequencing, and display are individually show-cased in each portfolio.

- predict or suggest student's future successes because the habits of mind on display are necessary for success in real job and career worlds. Being good at reflection, planning, selecting, prioritizing, envisioning and self-critiquing are as necessary out of school as they are within.

- generate effort and perseverance because students view them as very important and having both intrinsic and extrinsic value. Portfolios' intrinsic attractiveness is that they can become positively addictive, i.e. once started, students feel compelled to continue them. Extrinsic attractiveness pertains to the many employers who now consider portfolios as important predictors of job and career success.

- sharpen teacher's evaluation of students' work. Student portfolios represent them in multiple and consequential ways. Review

of portfolios reveals student skills beyond sit-in-a-desk content efforts and comprehensions. Portfolios indicate knowledge competencies in settings beyond, as well as within, classrooms and academic courses. Additional breadth of evaluation offered by portfolios enhances teachers' abilities to fairly judge many and various student abilities.

- enhance peer collaborations and mutual feedback, especially when students are encouraged to critique each others' portfolios as they are planned and compiled. Portfolio labs or workshops at designated times and meeting places should provide settings and motivations for such peer communications.

- direct student attention to past and present work. Selected portfolio artifacts represent a developmental journey covering years of learning and thinking products. Selection of best artifacts for inclusion in best-work portfolios demands student revisiting of efforts and productions over extended time periods.

Selecting Portfolio Content

A crucial student decision involves inclusion of artifacts. What talents and efforts do students want to make known and what portfolio artifacts will effectively represent them (Hauser, 1993)? Guidance in selection of artifacts should be provided at abstract and concrete levels.

Abstract Guidelines

In the abstract, each student should reflect on the question of what learning skills, character qualities, achievement talents, life and school experiences and habits of mind should be apparent to the portfolio observer. The artifacts selected should clearly portray and, if possible, concretize, guidelines represented in the abstract. Some guiding concepts to assist artifact selections are:

- Portrayals of professional knowledge, or inclusion of references to pedagogical techniques and issues.

- Portrayals of communication literacy or inclusion of book reviews, academic papers, point/counterpoint essays, and oral expression tapes.

- Portrayals of knowledge integration, or inclusion of artifacts that reveal interdisciplinary talents and immersions.

- Portrayals of technical mastery, or inclusions of artifacts that reveal sophistication with statistics, media, and educational technology.

- Portrayals of career reflection and focus, or inclusion of a curriculum vita and career goals essay.

- Portrayals of critical thinking skills, or inclusion of carefully written position or analysis papers.

- Portrayals of creative thinking talent, or inclusion of artifacts representing new perspectives or intriguing questions.

- Portrayals of affective qualities, or descriptions of deeply felt values, convictions and commitments.

- Portrayals of community endeavors, or inclusion of letters from co-workers and persons or organizations.

- Portrayals of self-assessment skills, or critiques of one's work by others and oneself.

- Portrayals of aesthetic talent as expressed in the very design and content organization of the portfolio, including the displays within. Also photos of displays and related visual arrangements could be included.

- Portrayals of additional miscellaneous accomplishments through inclusion of certificates or newspaper articles describing such endeavors.

- Portrayals of high regard and respect by others, or inclusion of testimonial letters from respected community professionals (Hauser, 1992, unpublished letter to a colleague at St. Norbert College).

Concrete Guidelines

The nature and variety of portfolio artifacts are so numerous that compendiums several pages in length can be created. The following is an incomplete listing of specific artifacts that an effective portfolio of a Teacher Education Major might contain:

-a resume.

-clinical experience reports.

-standardized test results.

-letters of recommendation.

-student created projects, maps, games, puzzles, study guides.

-test and quiz models constructed during interning or student teaching.

-descriptions of simulations, skits, and group work designs.

-critical incident reports.

-co-curricular participation and contribution descriptions.

-a best college course paper

-two or three position papers on specific and important Education topics.

-analysis of a current issue.

-videotape recordings of a teaching event.

-printed or recorded critique of a video tape performance

-a cover letter to introduce the portfolio and provide observers with a real and perceived sense of advance organization.

Judging Portfolios - Cautions, and Suggestions

A report featured in The Council Chronicle of the National Council of Teachers of English (1993) described portfolio use as an assessment phenomena that gathered momentum in the mid-eighties and has since "...gained tremendous popularity in school districts throughout the country" (p. 1). Robert Calfee, one of the speakers, noted that teachers had become "...outrageously enthusiastic about portfolios" (p. 3). This commitment seemed especially true if portfolio use was not system or administrator mandated, but picked up by teachers on their own at various workshops. Given that condition,

teachers will "...put enormous energy and time in exploring the possibilities" (Calfee, 1993, p. 1).

Calfee also noted lack of validity and reliability rigor applied to evaluation of portfolio outcomes. In other words, teachers are using portfolios before they know how and whether they produce beneficial outcomes. A movement to halt the rush to portfolios may be in the making, but rather than halt such efforts, the better caution may be to scrutinize the procedures and outcomes with more rigor. This means that educators should initiate portfolio assessment with clear perceptions of how it will assist students and how such assistance will be verified.

A consultant with the Vermont Writing Project indicates that quantitative evaluation of portfolio outcomes contradicts the intrinsic nature of portfolio advantages (Hewitt, 1993). He alludes to the "...very personal, very idiosyncratic, very anecdotal exchange (between teacher and student) that the portfolio provides so well for..." (p. 2) which may be lost if those subjective outcomes are represented with competitive grades. Student portfolios need to remain low-stakes endeavors, cautions Hewitt. The more we try to quantify what portfolio outcomes should be, the more threatening portfolios may become. Scoring may cause students to consider portfolios as coercive requirements meant to sort and select them into or out of programs.

There are no convenient solutions when it comes to issues of formal scoring of student portfolios. Certain students, conditioned to being measured against others, may prefer having portfolios scored. If

portfolios are major pieces in programmatic assessment, then certainly GPA driven high school and college systems would rather accommodate scored than non-scored portfolios. But doesn't external scoring diminish student freedom and feelings of empowerment? The compromise might be that if portfolio scoring is necessary, then equally important is clear student understanding of the scoring standards and adequate opportunity for students to seek good guidance throughout the portfolio process.

Also deserving additional research is the quality of inter-rater reliability. If portfolios are scored, are the scoring standards strong enough to enable several teachers to agree on final scores for single portfolios? Research indicates that scoring outcomes range from poor to fairly good inter-rater reliability (Herman, J. and Winters, L., 1994). One key to achieving high portfolio rater reliability is "...when experienced scorers use well-honed rubrics" (Herman et al., 1993, p. 50). The additional challenge of scoring stability over time is more effectively met when the raters agree on acceptable rating rubrics and are sufficiently practiced in portfolio examination (Case, S., 1994).

Portfolios at the College Level?

Will college professors embrace programmatic portfolio assessment? The right and duty to ask tough questions, anticipate obstacles, and ponder less-than perfect scenarios should not be avoided. Responsible thinkers should anticipate difficulties - in order

to forge durable and positive outcomes. Portfolio assessment is challenging for many reasons. The following are only a few.

- Portfolios are nontraditional evidence of student mastery and expertise. The traditional reverence for college as an ascent to wisdom and a de-emphasis on vulgar and secular distractions is still tacitly defended in academe. What could more directly challenge that ivory tower perception than having students value, collect and prominently display concrete and real-life artifacts in a portfolio form?

- To explain artifact selection to students, college departments and schools will need to clearly advise what should go into portfolios and convey reasons for those recommended artifacts. Inclusion of appropriate artifacts will vary across disciplines. This will mean being able to conceive of appropriate artifact content, explain it, then reference it to clear course and program goals. Faculty members will have to agree on which artifacts are valuable and which are probably not. Cohesive faculties may be able to accomplish this, but less cohesive faculties may agonize over that task and even give up on it.

- Orientation of students to portfolio assessment won't be accomplished quickly, such as over a half day or weekend. Multiple presentations and dialogue sessions will have to be planned over lengthier time spans so that eventually students will become more secure about the meaning and value of artifacts they have discovered and want to submit.

- What will the organizational structure of portfolios be? When will students begin them? Will one administrative coordinator direct

and monitor all portfolios? Will timelines for portfolio development be imposed? Will they be housed with students or will professors have easier access to them?

- Will the portfolios be scored? If so, by whom and by what means? If not, will the portfolio efforts be judged as intrinsically valuable enough endeavors, to be sustained by students and professors? Without scoring, which would necessitate ongoing scrutiny, levels of student and professor commitment might vary greatly.

- If specific portfolio scoring, based on standards, is preferred, what standards of excellence will be taught and resorted to during the scoring process? Various authors refer to such standards as rating "rubrics" or growth "benchmarks." (Winograd, P. and Jones, D., 1992). If the decision is to rate or score portfolios, the following standards might provide further guidance or discourse avenues.

Introduction

Students would be urged to include an introduction or opening commentary page that clearly introduces themselves and the content. This would serve as a preface for readers.

Positive Appearance

Neatness and visual attractiveness throughout the document would be expected by evaluators.

Organization

Logical arrangement and presentation of content would be expected. A sense of right order and sequence would be apparent to evaluators.

Success with this standard would demonstrate good student critical thinking skills and even qualities of perseverance.

Mediations

Occasional author commentaries that provide background or special information about specific portfolio inclusions should be inserted throughout. The sense of the author as being in touch with portfolio evaluators would be advanced by effective mediations.

Significant Meanings

The contents would clarify how the student is succeeding in academic and career preparations. If tapes, charts, photos, etc. are included, evaluators would know how and why such artifacts suggest present curriculum mastery and advancing career readiness.

Position Papers

These indicate the range of professional knowledge and literacy skills. Questions as to whether the student is well read, able to express convictions, and literate enough to successfully represent them in print can be explored by evaluators while they refer to the papers. Specific skills of spelling, sentence/paragraph construction, and vocabulary power would also be revealed to evaluators.

Originality

This standard might be applied only to very unique efforts. In other words, the subjective judgments of evaluators might identify most portfolios as being good, but not unusually creative. But certain productions might be sufficiently attractive or surprising that additional points or credit would be attached. Points would not be

deducted from portfolios judged as strong, but not exceptionally creative.

Such standards, represented above, are far from complete or crystallized. Standards will vary, but they should be valid, meaning that the discipline competencies and career purposes can be revealed through appropriate artifact inclusions. Students should understand the evaluation standards, then create and select artifacts that reflect such standards. Advisors can facilitate clarity of standards through clear introductory and follow-up meetings, augmented by additional small-group question and critique sessions. Excellent student and assessor dialogue should advance students' understanding of standards, appropriate artifacts, and rating rubrics.

Summation and Personal Denouement

College faculties may begin to express assessment dissatisfactions which reflect earlier expressions by teachers at elementary, middle and high school levels. An alternative some are experimenting with is student portfolios. Also of interest should be the probability that increasing numbers of students will enter college from high schools where portfolio products have been successfully implemented.

Portfolio assessment represents application of philosophical concepts variously referred to an alternative, authentic or true testing. Their common goals include teachers' investigation and observation of students' habits of mind and use of enabling tasks to assist the

exercise of students' thinking and valuing habits. Replacing fact memorization and fragmented requirements with pursuit of real-world skills which enable students in social, emotional, and physical workplaces, has become the articulated goal of true testing educators.

Descriptions of portfolio purposes abound as do suggested examples of artifacts that portfolios might contain. Selection of appropriate portfolio artifacts is a central task for students to learn and appropriate guidance must be provided by teachers. Abstract and concrete guidelines for portfolio design and artifact inclusion are presented in these pages.

The questions of whether college teachers, departments or entire faculties will adopt portfolio assessment is addressed through descriptions of challenges that such assessment may present. Provisional guidance, related to scoring rubrics, is also offered for college teacher reflection.

Portfolios may represent a powerful alternative to traditional curriculum tasks and tests. They may, arguably, represent a challenging tool for better student work and assessment. They may also seem faddish, subversive and threatening to groups of college teachers and assessment professionals. College teachers and students, who experiment with them, should have substantial guidance and motivation to "...design, manage, and interpret portfolios" (Winograd and Jones, 1992, p. 48).

I've had students construct portfolios for a specific course over several years and they enjoyed doing them. As their portfolios grew in

artifact content and sophistication, they became prouder and more motivated to continue. I recall one student describing her portfolio energies as "...self-conscious, in a good sense, and even at times meditative." As a college professor who maintains a best work portfolio of his own, I share that student's view and add that portfolios are exciting indulgences in critical and creative thinking which, years later, become sources of sweet professional life recollections.

References

Allen, R. (1994). Performance assessment. Focus, WEAC Educational Issues Series. Madison, WI: Wisconsin Education Association Council.

Belanoff, P., & Dickson, M. (1991). Portfolios: Process and product. Portsmouth, NH: Boynton/Cook Heinemann.

Bennett, R. E., & Ward, W. C. (1993). Construction versus choice in cognitive measurement: Issues in constructed response, performance testing, and portfolio assessment. Hillsdale, NJ: Lawrence Erlbaum Associates.

Berlak, H., Newmann, F., Adams, E., Archbald, D., Burgess, T., Raven, J., & Romberg, T. (1992). Toward a new science of educational testing and assessment. Albany, NY: SUNY Press.

Calfee, R. (1993, November). New standards takes close look at portfolios. The National Council of Teachers of English. The Council Chronicle, 3 (2).

Camp, R., & Levine, D. S. (1991). Portfolios evolving: background and variations in sixth through twelfth grade classrooms. Portfolios: Process and Product. Edited by Pat Belanoff and Marcia Dickson. Portsmouth, NH: Boynton/Cook Heinemann.

Case, S. H. (1994, October). Will mandating portfolios undermine their value? Educational Leadership, 52 (2).

Hauser, J. (1994, February). College student portfolios: A representational format for best profile dimensions. (ERIC Document Reproduction Service No. ED 362090).

Herman, J. L., & Winters, L. (1994, October). Portfolio research: A slim collection. Educational Leadership, 52 (2).

Herman, J. L., Gearhart, M., & Baker, E. L. Assessing writing portfolios: Issues in validity and meaning of scores. Educational Assessment, 1 (3).

Hewit, G. (1993, November). New standards takes close look at portfolios. The National Council of Teachers of English. The Council Chronicle, 3 (2).

Hileman, S., & Case, B. A basic writers' portfolio. Portfolios, Process and Product. Edited by Pat Belanoff and Marcia Dickson. Portsmouth, NH: Boynton/Cook Publishers.

McDonald, J., Smith, S., Turner, D., Finney, M., & Barton, E. Graduation by exhibition: Assessing genuine achievement. Alexandria, VA: ASCD Press.

Paris, S. G., Lawton, T. A., & Turner, J. C. Reforming achievement testing to promote student's learning. In C. Collins and J. Mangieri. (1993). Learning in and out of school. Hillsdale, NJ: Lawrence Erlbaum.

Sternberg, R. (1984, June). Testing intelligence without IQ tests. Phi Delta Kappan, 65 (10).

Siegel, J., & Shaughnessy, M. F. (1994, March). An interview with Howard Gardner: Educating for understanding. Phi Delta Kappan, 75 (7).

Uphoff, J. K. (1989, September). Portfolio development and use: The why's, how's, and what's. Dept. of Teacher Education, College of Education and Human Services. Dayton, OH: Wright State University 445535.

Vavrus, L. (1990, August). Put portfolios to the test. Instructor.

Wiggins, G. (1989, May). A true test: Towards more authentic and equitable assessment. Phi Delta Kappan, 70 (9).

Wiggins, G. (1993, November). Assessment: Authenticity, context, and validity. Phi Delta Kappan, 75 (3).

Winograd, P., Paris, S., & Bridge, C. Improving assessment of literacy. The Reading Teacher, 45, 105-116.

Winograd, P., & Jones, D. The use of portfolios in performance assessment. New Directions for Educational Reform, 1 (2).

Wixson, K., and Peters, C. Comprehension assessment: Implementing and interactive view of reading. Educational Psychologist, 21, 333-356.

Portfolio Use In Higher Education: A Primer

Yvonne Murnane, Ph.D.
St. Norbert College

My discussions about portfolios with colleagues in various disciplines in academe have ranged from polite to engaging to heated to hostile. Some reasons for this wide spectrum of conviction for portfolios as a means of assessment is possibly rooted in the belief that assessment is statistically and numerically generated, or that some areas of study do not lend themselves to this format, yet some are based on not having a clear enough understanding on portfolios themselves. As we consider the adoption of portfolios into our teaching/learning rubrics, we might want to consider the following concepts as a guide to change.

Why change assessment? What is a portfolio? How is it authentic assessment?

Some Observations on Assessment

"We are a society that assesses constantly" (Glazer, 1993, p. 1) From the moment a child is born, we are measuring and comparing the child to others. We not only have comparative data on physical development, but we have experts who tell us about all aspects of a child's development: the cognitive and affective. We are surrounded with measurement data. Our experts have provided us with "normal expectations" in the form of quantitative scores. All levels of school communities have succumbed to the social and economic pressures to

use standardized test scores to determine curriculum goals and accomplishments. Test scores have become the determinants of academic success.

Test scores do provide definitive data that add to the information about a student's performance, but there also needs to be room for real-life expositions, or the type of performance that cannot be measured by a test score but the kind that occurs on a daily basis in communication and personal interactions. Individuals are constantly demonstrating their knowledge through a variety of channels: oral presentations, services rendered, artistic productions, mathematical solutions, to name a few. How can such knowledge demonstrations be included as a legitimate aspect of assessment?

Portfolios

A portfolio is a multidimensional collection of a student's work assembled in an organized fashion. The work may represent the cognitive, affective or psychomotor dimensions of learning. It is work that is selected by the student and by the teacher. It may also include observations and anecdotal records of a student's progress. Specific attention is given to what students are doing and can do.

There are a variety of kinds of portfolios. The two most common types are the developmental and the representational portfolio.

Developmental Portfolios

Developmental portfolios contain work samples that represent student growth in one or several areas over time. For example, students could

place successive drafts of an essay in the portfolio as well as the final teacher-scored draft. A geography work-group could submit evidence of a map construction project as it progressed, perhaps by way of several photographs, from start to finish. A log notating the ideas generated and how the work progressed by various individuals may also be inserted.

Representational Portfolios

Representational portfolios contain various examples of one's best work without inclusion of successive drafts or model creations. One may describe this kind of portfolio as a "best-profile." Models and artists develop representational portfolios to aid them in pursuit of employment. The crucial decision involved with this type of portfolio is what artifacts, representing the best array of one's talents, should be included (Hauser, 1993).

Portfolio Assessment

When adopting portfolios in the classroom, you may be changing your concept of assessment. Using portfolios provides a working relationship with teaching and learning. It is a form of assessment that is responsive to what students are doing. A portfolio can represent a range of activities that occur in the classroom. The concept of a portfolio is to represent literacy as we know it. Assessment should empower both teachers and students. Portfolios enhance worthwhile classroom practices; they legitimize specific methods and projects developed within a classroom. Portfolios also

allow the students to change their view of assessment. Portfolios allow students to know assessment as an opportunity to reflect upon and celebrate their effort, progress, and improvement. This could also include understanding of the processes and products of learning (Tierney, 1991).

In order to judge if your current methods of assessment reflect what is happening in your classroom, ask yourself the following questions:

1. Do my current methods of assessment empower students? Can they take responsibility for their own learning?

2. Do my current methods of assessment give me enough information about student's growth, achievement, and needs?

3. Do my current methods of assessment make a connection between what I expect students to know and what is necessary in the real- life application of such knowledge?

If you are displeased with any answers to these questions, portfolios may help you to better represent the learning transpiring in your classroom.

Getting Started

Setting Goals and Evaluation Standards

Before introducing the portfolio itself, set clear goals for using one. What do you want your students to learn from their portfolio, and how will you evaluate their progress? Here are the portfolio standards that Hauser (1993) has developed and used for several semesters with students. These standards are summarized here and explained in more detail in the preceding article.

Introduction. The students should write an opening commentary or explain why and how they developed their portfolio.

Positive Appearance. Neatness and visual attractiveness throughout.

Organization. Content is logically arranged and presented.

Mediations. Author commentaries where necessary or appropriate.

Significant Meaning. The contents would demonstrate a student's potential in a particular career.

Position Papers. These represent taking a stand on a particular educational issue.

Originality. This standard is applied only to highly unique/creative efforts. This is the most subjective standard. It is difficult to determine how highly creative portfolios differ from good but more ordinary counterparts.

Describing the Portfolio

After setting goals and evaluation standards, then describe what a portfolio is. Discuss guidelines for gathering and selecting materials to include. Try to give concrete examples. You may have access to a professional (representational) portfolio, such as from an artist or architect. You may compile material representing the range of work of famous people, such as Leonardo da Vinci, John F. Kennedy, Arthur Ashe. You may prepare your own portfolio. From personal experience I have found that preparing and describing your own portfolio is the most effective. It is the most effective because you represent the discipline or career choice of the student. Students are intently interested in what represents their field of study. You are also able to give sincere and detailed reasons as to why a particular piece represents some of your "best." You can also include works that represent how you have evolved as a professional. What were you like ten years ago? What is your work like now? You also reveal something about yourself as a learner; you demonstrate what you can do best, what you have learned, and what you think is important.

Customizing Contents

The specific contents of a portfolio will vary according to discipline or areas of study and even the level of the course, but each portfolio should contain samples of the student's work as well as student evaluations. No matter what items you choose to include in the portfolio, it is essential that both teacher and student understand

the value of each item included in the portfolio. Why is it there? What does it represent about the learning so necessary in a particular career or discipline?

What Are Appropriate Portfolio Items?

Most any classroom work is an appropriate item for a portfolio. Items do not need to be "best" or finished. Journal entries, attitude and interest surveys, successive drafts of a paper or drafts of a project are possible admissions. You are not limited to paper and pencil pieces. Videotapes of presentations or actual working experiences are possibilities, as well as tapes of work, such as a storytelling or oral rendition of important information. Remember a portfolio is multidimensional; it represents learning in any possible mode. Graphs, charts, photographic essays, photos demonstrating the progress and stages of a project are all worthwhile items. Even pencil and paper tests (objective or essay) are potential inclusions that can show the student's learning development and attainment of course goals.

A portfolio is not complete unless it also includes student evaluations. A student evaluation should occur with every item included in the portfolio or with a grouping of items, such as successive drafts or pieces demonstrating the process or stages of a project. You can use 3" by 5" cards that are attached to the various items. You can allow the students to write free commentary about the significance of the portfolio items, or you may have guided questions. These may be guided questions that evaluate the portfolio as a whole

or questions to consider for each item. Some possible overall questions are:

- What are the three most important things you can do as a photographer, accountant, debater?

- What are three things you want to do better as a teacher, computer programmer, French linguist?

- In this course, how have you changed as an economist, geographer, chemist?

- What is the most effective piece in the portfolio that demonstrates you as a biologist, writer, philosopher? Be specific with at least three reasons as demonstrated in this piece.

- What have you discovered about yourself as a researcher, speaker, historian? Be specific with at least two examples.

- What is your greatest strength as a learner?

- What is your greatest weakness as a learner? Give a suggestion to overcome this weakness.

- Name one thing that I (the teacher) did that helped you the most to be a physicist, psychologist, sociologist?

If you are going to allow students to change their view of assessment then it is essential that students evaluate their own work. Without this component, the portfolio does not become a means to provide a working relationship with teaching and learning. It still remains a top-down, teacher-driven aspect of the classroom--what the

teacher dictates. This self-evaluation empowers students to be responsible for their own learning.

Summary of Thoughts

Portfolios are considered authentic assessment because they represent both active learning and various kinds of learning that occur in the classroom. Student work becomes applicable in real world situations. The classroom work provides more opportunities to be like that actually performed in the workplace. There is also a metacognitive aspect to portfolio development. Students are able to monitor their learning: what do I know, what do I need to know? Students are also investing in their learning with a portfolio. They are taking ownership through choices, developmental pieces of progress and/or best work, and decisions about their accomplishments.

References

Glazer, S. M. & Brown, C. S. (1993). Portfolios and beyond: Collaborative assessment in reading and writing. Norwood, MA: Christopher Gordon Publishers.

Hauser, J. (1993, April). College Student Portfolios: A representational format for best profile dimensions. Presentation at the International Reading Association for Organization of Teacher Educators in Reading.

Tierney, R. J., Carter, M. A. & Desai, L. E. (1991). Portfolio assessment in the reading-writing classroom. Norwood, MA: Christopher Gordon Publishers.

Valencia, S. W., Hiebart, E. H., & Afflerbach, P. P. (1994). Authentic reading assessment: Practices and possibilities. Newark, DE: International Reading Association.

Casting Portfolios Across The Curriculum To Encourage Reflection

James J. McFadden
Miami University

Part One: Portfolios Across the Curriculum to Encourage Reflection

The variety of portfolio programs at Miami University, Oxford, Ohio, prove an informative resource for teacher research in part because a large number of university, departmental, and course-specific portfolio programs are in place at Miami but also because portfolio programs in the Schools of Applied Science, Business Administration, Education, Interdisciplinary Studies, and the Department of English are seniors in their discipline and parent to portfolio programs at other universities (Cox et al., 1994.). For example, in 1990 the Department of English opened the nation's first entrance portfolio writing program, providing advanced placement and college credit to entering students who demonstrate their ability to write well. That program has since proved durable and transferable as other universities have modeled their entrance portfolio program on Miami's. For many first-year students, the entrance portfolio program is the initiating professional development experience at Miami.

More and more each year, portfolio assessment programs have come to characterize the undergraduate experience at Miami in the liberal arts, applied science, and teacher education programs. Prominently at Miami, as the case may be in many liberal arts and teacher education programs, a large number of undergraduates move

between informally sequenced portfolio programs. Depending on what courses they select, many first-year education students encounter initial programs and courses that assign genre specific portfolios, and travel on to subsequent courses that assign more open, content-suggested portfolios in the sophomore and junior years. Commonly, first-year students write two content-specific, genre portfolios in their English composition courses. Having written those first portfolios helps English Education majors develop a content-suggested, course-specific, goals portfolio in their sophomore and junior years before they prepare career portfolios their senior year. During the senior year, students can draw from their earlier portfolios to create job search portfolios as part of their education courses and career placement programs.

Conceived as a celebration of reflective portfolio programs, this essay reviews a coordinated three-stage sequence of portfolio programs in place for English Education majors at Miami and reports on the status of university-wide efforts to encourage reflective thought among students at Miami. It is intended that readers of this essay will gain insights into the advantages and limitations of sequenced, portfolio programs so that, to whatever degree possible, readers may anticipate effects of similar portfolio programs they implement in their own institutions. But, more importantly, this essay proposes that a three-stage portfolio sequence--the genre portfolio, the goals portfolio, and the career portfolio, all in place for English Education majors at Miami on a regular basis--can encourage student reflection

by coordinating one strand of an undergraduate curriculum. Cast across the curriculum, such a comprehensive portfolio program centers the university's varied programs and disciplines in the specific career goals and reflective capacities of its most important members, the students.

Dual First-Year Portfolio Programs

The first portfolio program in the three-stage portfolio sequence for English Education majors at Miami, a genre portfolio program, focuses on successful student performance in the modes of discourse introduced in first-year college composition and college literature courses. The genre-specific portfolios produced in first-year English composition courses and the department's entrance portfolio program both present student work in discourses and modes of analysis characteristic of the discipline. For example, Miami's entrance portfolio guidelines for 1994 request portfolios that include: (a) a reflective letter that introduces the writer and the portfolio, (b) a story or a description, (c) an explanatory, exploratory, or persuasive essay, and (d) a response to a written text. Traditionally, genre portfolios are representative collections of students' best work in the varied discourses of a general education course. Whether individual or collaborative, these course portfolios represent student work in a process-oriented, artifact collection. Introductory and connecting reflections between the written artifacts display the student's interpretation of course objectives and their self-assessment as learners. At their best, genre portfolios present reflection on the

process of their construction, as well as draft work, lab notes, with peer and professor critiques. Genre portfolios are traditionally discipline centered, genre targeted, intending to generate personally reflective learning, but they are equally capable of documenting and enhancing socially critical, politically active learning.

Of course, successful portfolio programs at Miami sponsor personal and political reflection in teachers, as well as in students. As reported in Grogan and Daiker (1989), each June, members of the Department of English are invited to a two-day, reflectively organized, group scoring session to rank entrance portfolios holistically. Scorers provide each portfolio with at least two blind reviews. Afterwards, the program and its submission guidelines are reviewed by the department's College Composition Committee so that the entrance portfolio program is regained in its own terms and revised in conjunction with the standard composition syllabus. Team grading programs contribute substantially to the discussion of teaching and assessment practices in a department.

The Sophomore and Junior Year Portfolio Program

The content-suggested portfolio program for English Education majors at Miami focuses on second and third year students' commitments to professional goals within the liberal arts and teacher education programs. Unlike the closed portfolio programs, these subsequent portfolios allow students to select the genre and contents of the texts in their portfolio from lengthy, expanding suggestion lists. (See the sample suggestion list for an English teachers' goals portfolio

in Figure 1.) While student additions to the lists of suggestions is encouraged, the lists provide students with more suggestions for writing than any portfolio should include so students can represent their aspirations richly and variously. Because it is focused on the reflective assumption of intellectual roles, this second portfolio program, the goals portfolio, can encourage reflective practice in the teacher education classroom, especially when the portfolio augments reflective course work in teacher research.

Goals portfolios encourage students to name, undertake, and reflect on their commitment to the roles, goals, and genres of their chosen disciplines. At their best, goals portfolios expand over the sophomore and junior years as students work in the discourses of their majors. Each section of the portfolio may contain any number of texts and focus on the student's performance on one of their discipline's professional roles. For example, sections of the goals portfolio under discussion in Chris M. Anson's "Portfolios for Teachers: Writing Our Way to Reflective Practice" (1994) are titled repetitively per disciplinary role: "Teacher as Writer," "Teacher as Scholar," and "Teacher as Professional" (pp. 188-90). (See the sample suggestion list for a goals portfolio in Figure 2.) I would only add here that critical and resistant roles should also be welcomed in goals portfolios, roles such as "Jim as Cultural Worker" (Giroux, 1993, pp. 89-124.)

Most often, though, goals portfolios and each of their "My-Self-As-Named" sections are role centered, role directed discipline targeted. One advantage of goals portfolios is that existing

departmental course objectives can coordinate the standards for the portfolio's progress across the curriculum. Within each course, assessment criteria could remain course specific. However, the whole portfolio, because it is sectioned into varied, usually course-specific roles, such as "Beth as Teacher of Writing" and "Beth as Teacher-Researcher," can travel autonomously between courses with the students. In each course, again, students add one or more new sections to the expanding portfolio. Of course, goals portfolios are never used to police the students' sense of self, which is a cultural, gendered artifact. Instead, goals portfolios should encourage students to portray, contextualize, assimilate, and even critique the varied disciplinary roles they encounter in their profession.

While at first glance, goals portfolios may appear to be student centered, it is clear that they are not. Instead goals portfolios are role centered. They contextualize disciplinary roles as performance goals to be selected or rejected by the novice performer. As post modernism theorists have explained, the social roles targeted and maintained by our collective subscription are narrative tropes and cultural utterances we learn to perform as we insist on becoming subject to the disciplinary enunciation of those roles through reflective practice (Kristeva, 1974/1984; Smith, 1988). With our students, we subscribe to exclusive, dramatic, and disciplined performance as a function and fulfillment of that performance. At a minimum, for students who are already subject to the disciplined enunciation of professional culture, goals portfolios allow the author to slowly revise

their sense of self to accomplish their image of a discipline's roles. Importantly, less assimilated students can use the goals portfolio to rewrite and disrupt the discipline's narrow goals in terms critically important to their cultural values and their political commitments.

Also, because goals portfolios direct students to reflect personally and critically on the process of their coming to disciplinary roles it is important for teachers to remember that access to the disciplines is restricted culturally, per ethnicity, gender, and class. In any case, reflectively constituted goals portfolio programs might expand the province of cultural and gender heritages if teachers can welcome diverse reflective traditions to the professions while also allowing students times to formally try on and tailor, as it were, the narrow cultural roles embodied in the disciplines. Goals portfolios can also lead, after supervised teaching for example, to the development of job search and career portfolios.

Senior Year Career Portfolios

During their senior year at Miami, as at other institutions, many students employ the career development portfolio to target and enter the job market. In career portfolios, students work in the varied discourses of the work place, which are not necessarily equal to the discourse of the disciplines or majors. Career portfolios encourage reflection by the applicant on texts and experiences that will portray their career preparedness and plans. As a mentored portfolio, the contents of the undergraduate career portfolio should be negotiated with supervising teachers and other reference providers. Building

substantially on the disciplinary roles examined in the goals portfolio, the career portfolio is role manifesting, market targeted.

Currently at Miami, 12 disciplines and one branch have received Curriculum Instruction Improvement grants to revise the evaluation of university teaching through the development of a standardized teaching portfolio (Cox et al.). Under the auspices of the Office for the Advancement of Scholarship and Teaching, this well-funded assessment improvement program proceeds, for the most part, in the program implementation model popularized by Peter Seldin's Successful Use of Teaching Portfolios (1993). The teaching portfolio currently under development at Miami includes a table of contents and list of appendices followed by a brief reflective essay. Routinely, the 7-10 page essay presents the statement of a teaching philosophy and contains topical links to supporting documents. In one prominent model (Millis 1994), the essay develops a controlling idea for its reflective commentary and teacher research. For example, all of a teacher's course syllabi appear in the appendices but only the best or representative syllabi are discussed in the essay. Similarly, while all observer comments on a teacher's classroom appear in the appendices, the reflective essay discussed only those comments the teacher thinks are important. Although a large number of teaching portfolio models have been reviewed, this standard model for faculty portfolios at Miami is destined now for prominence in the undergraduate and graduate curriculums as well. It is well apparent that portfolio assessment has gotten Miami faculty to practice what

they teach. Much as successful writers keep a portfolio of their best work and works in progress, successful teachers maintain a teaching portfolio that validates its reflection through teacher research.

Part Two: Reflection Across the Curriculum

Miami faculty are well aware that there are multiple strengths in these portfolio systems. For example, classes following the standard first-year English composition syllabus review disciplinary discourse as an exclusionary practice by a privileged but conflicted discourse community, even as students write disciplinary discourse for their genre portfolios. Also, portfolio classrooms presume process-oriented teaching strategies, such as peer response, revisions guidance and teacher conferences, that have received scant formal study. By themselves, methods of classroom and portfolio organization do not necessarily encourage reflection. Just as many of the teachers who use portfolios in their classrooms learned to keep their own portfolios as a practical necessity of the method, teachers who encourage reflection in their classroom have come to understand that reflection must be presented as an integral part of the classroom experience.

As the second half of this essay will show, the current conversation at Miami on the value of reflection in its portfolio writing programs mirrors the national debate about the efficacy of reflection and struggles to fulfill the ethical implications of recent research about reflection. Informed by the broader debate, this limited discussion of the reflective practice that I encourage in students presumes that

reflection can be taught because it is a culturally specific practice. In this case, in part, I presume to report the history of reflection because I have been most successful at conveying its traditions to others in sequenced narrative.

A Brief Cultural History of Reflection

As an object of formal study, reflection has remained infamously elusive at least since Freud discovered "the talking cure" and professionalized the analysis of personal reflection. Freud (1920) clarified the ego's investment in maintaining the unconscious and (1923) discovered other mental apparatuses that compel behavior and cloud self reflection. By substantively critiquing the eminence ascribed to the pleasure principle, the belief that the first course of mental events is to avoid displeasure by integrating it into mental equilibrium, Freud substantially revised the forward momentum that was assumed characteristic of linear thought. Additionally, with his system of consciousness, including the id, ego, and superego, Freud popularized the notion of organic barriers to recursive thought and made apparent the self-fulfilling foundation of much personal reflection. Freud's work, then, disrupted the standard faith in the efficacy of self-reflection.

More recently, an important historical moment in the professional analysis of reflection, one particularly pertinent to discussion of undergraduate self-reflection, occurred in the form of two parallel debates within educational psychology. In 1982, Carol Gilligan published an important study in women's moral development

and contrasted her study with Lawrence Kohlberg's Philosophy of Moral Development (1981). According to Gilligan, women's moral development is organized around notions of responsibility and care. Gilligan successfully contrasted her conception of women's morality against research on men's moral development. Researching men's development, Kohlberg had argued that moral development is organized around notions of rights. Gilligan's study contrasted with Kohlbergs, and argued substantively that modes of self-reflection are gender specific. Following Gilligan, Mary Field Belenky, Blythe McVicker Clinchy, Nancy Rule Goldberger, and Jill Mattuck Tarule (1986) published a similarly influential study characterizing women's self-reflection. The Belenky study, as it became known, contrasted with William G. Perry's (1968) study on male intellectual and ethical development in the college years: "When we began our analysis by classifying the women's data using Perry's scheme, we found that the women's thinking did not fit so neatly into his categories" (p. 14). Like Kohlberg, Perry had extended his research findings from study on white males to the larger populace. Collectively, the Kohlberg/Gilligan and Perry/Belkenky debates: (a) clarified the historic male bias in psychological research on self-reflection, (b) revealed gender specific disadvantages to the linear momentum of modern thought, and, (c) verified Freud's analysis of the ego's investment in maintaining the unconscious, apparently in ways he could not foresee.

Reflection at Miami

Of special note is an interpretive study by Laurel Black, Donald A. Daiker, Jeffrey Sommers, and Gail Stygall (1994) undertaken in the Department of English at Miami University. These researchers examined the reflective letters in 15% of a year's submissions to the department's entrance portfolio program and largely concurred with the Gilligan and Belenky studies about gendered reflective practice. When writing reflective letters for their genre portfolios, significant numbers of female writers tend to reach out to readers from a private, confessional space, such as their bedrooms, while male writers tend to reach out to their audience from a public space, such as their school's status. While reflecting, female writers portray themselves and refer to their friends and supporters. Reflecting male writers refer to themselves and report their accomplishments. Hence, female reflection appears the more bodily mirrored, more personally solicitous. In contrast, male reflection appears to presume endearment. For males, reflection is more a display of potential powers than of personal attraction.

As the Miami research team notes in a separate study examining gender assignment to unsigned portfolios (Stygall, Black, Daiker, and Sommers, 1994, p. 248), recent analysis of gendered reflection distinguishes more substantively between gender identity and biological sex than popular studies have in the past (Butler, 1990). It is broadly apparent today that neither biological sex or sex interest are correlates of gender identity. Clearly, biology is not a determinant of

gender. Instead, gender is learned, cultural performance. In the common parlance, many males are female identified, and many females are male identified. Consequently, reflection appears less complexity gendered than are human identities. Interestingly, work on the ethnicity of reflection (Rich, 1984; Mohanty, 1989-90; Hooks, 1991) has proceeded in concert with the work reviewed here on gendered reflection. At this point, one common lesson may be sufficiently clear without further review. Reflection is a learned performance, characterized by identification processes that are not determined distinctly by sex, ethnicity, or class. Reflective practices are gendered but, like gender and culture, are not biologically specific. There is after all no essentially female reflective practice. Yet, there does appear to be a feminine and a masculine mode of reflection available for subscription. If the effects can be linked, it would appear, chronologically speaking, that reflective practices play a role in gendering identity rather than the reverse. In this light, the important questions about the gendered and cultured status of reflections become: (a) Whose interests does the chronicled misinterpretation maintain? (b) How is the number of alternative modes for reflection limited? (c) What ethical responses can I pursue? (d) How might I encourage reflection beyond its restraints?

Reflective Practice

As a female identified male, I may move between reflective traditions depending on my situation and the moment, although my home court is readily misread. Clearly, I am richer for the choice and

am potentially more reflective because I can learn diverse traditions. It is that modestly diverse part of my social location that motivates my reflective pedagogic practice. For my students, who are diverse like and unlike me, a goals portfolio program can provide sufficient time for reflection on their strategic assumption of roles and can stress the importance of diverse reflective practices if those traditions are detached from their culturally assigned biologism and valued as life enhancing ways of knowing. Perhaps most importantly, as Henry Giroux stresses (1993, pp. 114-122), an important reflective practice I gain from study in diverse reflective traditions as a culturally privileged white male is not a final conquest in Anglo-imperialism but, if chronicled, my research and teaching in privileged and occluded reflective traditions informs my sense of cultural justice, ethical relations, and personal responsibility. As a white man, in spite of my personal resistance to chauvinism and racism, I receive unearned privileges of daily material consequence from my culture. I remind myself that my reflective tradition instructs me to hear the void of difference as error, that holding back from suffering is not a form of suffering.

As an object of study at Miami, undergraduate course work in diverse reflective traditions is broadly supported by the Miami Plan for Liberal Education passed by the University Council in 1987. Consequently, for example, course work in cultural reflection is prominently featured in the standard first-year composition syllabus written by the Department of English. In those courses, professional

arguments are assessed in the terms of the interests they reflect. The social roles that generate warrants for professional arguments are clarified and considered. Students are encouraged to reflect on the relative value of diverse social roles and the cultural conflicts that mediate and maintain them. In due time, students who attend to the reflective component of the course tell me they have found in it new power to assess and address their behavior, as well as new capacities for personal and professional communication.

Figure 1
What to Include in Your Goals Portfolio

Remember that the portfolio is yours. Take control of it. Make it uniquely your own. Take risks. Be creative. Surprise yourself. If you genuinely like your portfolio, chances are very good that I will like it to. Every portfolio must include a piece of teacher research. What else you include is wholly your choice, but here are some suggestions.

1. One or more especially important journal entries or pieces of free writing. Why are they important to you?
2. A "breakthrough" piece of writing--perhaps your first poem or a childhood memory or an I-Search paper.
3. Your response to something you've read this term that has made an especially significant impact on your thinking.
4. A journal entry in which you "lost control" or where you began to understand something that hadn't been clear earlier.
5. The history of the best piece(s) of writing you've ever done.
6. The drafts of a piece you wrote this term which you will plan to use in your classroom next year or the year after.
7. A list of books, stories, plays, or movies to read or view for possible use in classroom next year of the year after.
8. A composing process paper: an explanation of how you go about creating something out of nothing, bringing order out of chaos, transforming a blank sheet of paper into something meaningful.
9. A proposal that you will submit to give a presentation at a professional conference like OCTELA or NCTE.
10. Responses from classmates to a piece of your writing--and your reactions to their response.
11. Notes you've written yourself on how to evaluate and assess writing.
12. Your credo--a series of "I believe" statements that reflect your views of teaching and learning.
13. A statement of your teaching goals: when students leave your class, how do you want them to be different? List goals in order of importance.
14. A plan for doing another teacher-research project next year.

What Else Might Your Portfolio Include?

1. A title page
2. A dedication
3. A table of contents
4. Acknowledgments
5. An afterward or farewell or epilogue
6. Pictures, drawings, sketches, or other visual material
7. Dividers
8. Work in progress, manuscripts
9. Your choice

Course syllabi of Daiker, D. and Fuller, M., Miami of Ohio University. Used by permission.

Figure 2
Goals Portfolio Guidelines: The Reflective Practitioner

In this section of your portfolio your goal is to convince us and yourself that you are or are in the process of becoming a good teacher of writing. You can be convincing in any way you choose--please do not feel restricted by the list below--but here are some suggestions.

1. Good writing teachers are life-long learners.

   --they learn from their students
   --they learn from their colleagues
   --they learn from being professionals
   --they learn from books written by teachers they admire

2. Good writing teachers conduct teacher research.

3. Good writing teachers are open to change.

4. Good writing teachers are reflective practitioners. They think about what works and doesn't work. They ask themselves why they do what they do and what theory supports their teaching.

5. Good writing teachers are guided by an evolving philosophy of teaching.

6. Good writing teachers try to understand and evaluate their own past experiences--both as students and teachers--in order to help them make decisions about the teaching of writing.

7. Good writing teachers honor diversity and celebrate difference.

8. Good writing teachers do not accept uncritically what they are told by colleagues, principals, scholars, researchers, or instructors.

9. Good writing teachers help their students become writers.

10. Good writing teachers connect writing with the other language arts--reading, speaking, and listening.

11. Good writing teachers write.

Course syllabi of Daiker, D. and Fuller, M., Miami of Ohio University. Used by permission.

References

Anson, C. M. (1994). Portfolios for teachers: Writing our way to reflective practice. In L. Black, D.A. Daiker, J. Sommers, and G. Stygall (Eds.). New Directions for Portfolio Assessment: Reflective Practice, Critical Theory, and Large-Scale Scoring. (pp. 185-200). Portsmouth, NH: Heinemann.

Belenky, M. F., Clinchy, B. M., Goldberger, N. R. & Tarule, M. J. (1986). Women's ways of knowing. New York: Basic Books.

Benjamin, J. (1988). The bonds of love: Psychoanalysis, feminism, and the problem of domination New York: Pantheon.

Black, L., Daiker, D. A., Sommers, J. & Stygall, G. (1994). Writing like a women and being rewarded for it: Gender, assessment, and reflective letters from Miami University's student portfolios. In Black L., Daiker, D.A., Sommers, J. & Stygall G. (eds.). New Directions for Portfolio Assessment: Reflective Practice, Critical Theory, and Large-Scale Scoring. (pp. 235-247). Portsmouth, NH: Heinemann.

Butler, J. (1990). Gender trouble: Feminism and the subversion of identity. New York: Routledge, 1990.

Chodorow, N. (1974). The reproduction of mothering. Berkeley: University of California Press.

Cox, M. D., Blaisdell, M., Burgoon, K., Dutton T., Eacker, S., Ettouney, O., Faimon, P., Galik, B., Gifford, J., McCormack, A., McKenna, W., Rubenstein, J., Shulman, G. & Skipper, C. (1994, November). A department-based approach to developing teaching portfolios. Panel presentation at the 14th Annual Lilly Conference on College Teaching. Miami University. Oxford, OH.

Freud, S. (1962). Ego and the id. J. Riviere (Trans.). New York: W. W. Norton. (Original work published 1923)

Freud, S. (1961). Beyond the pleasure principle. J. Strachey (Trans.). New York: W. W. Norton. (Original work published 1920)

Gadda, G. (1991). Writing and language socialization across cultures: Some implications for the classroom. In F. Pietzman & G. Gadda (Eds.). With Different Eyes: Insights into Teaching Language Minority Students Across the Disciplines. Los Angeles: UCLA Publishing.

Giroux, H.A. (1993). Living dangerously: Multiculturalism and the politics of difference. New York: Peter Lang.

Grogan, N. & D.A. Daiker. (1989). Team-grading in college composition. Writing Program Administration. 13. 1-25.

Hooks, B. (1991). Essentialism and experience. American Literary History, 3, 172-181.

Irigaray, L. (1985). Speculum of the other woman. G.C. Gill (Trans.). Ithaca, NY: Cornell University Press.

Kitchener, K. (1983). Cognition, metacognition, and epistemic cognition: A three-level model of cognitive processing. Human Development, 26, 222-232.

Kohlberg, L. (1981). Philosophy of moral development. San Francisco: Harper and Row.

Kristeva, J. (1984). Revolution in poetic language (L.S. Roudiez, Trans.). New York: Columbia University Press. (Original work published in 1974).

Millis, B. (November, 1994). The teaching portfolio recent developments. Paper presented at the 14th Annual Lilly Conference on College Teaching. Miami University. Oxford, OH.

Mohanty, C.T. (1989-90). On race and voice: Challenges for liberal education in the 1900's. Cultural Critique, 179-208.

Perry, W.G. (1968). Forms of intellectual and ethical development in the college years: A scheme. New York: Holt, Rhinehard and Winston.

Rich, A. (1984). Notes toward a politics of location. Blood, Bread, and Poetry: Selected Prose, 1979-1985. New York: Norton. 210-231.

Seldin, P. (1993). Successful use of teaching portfolios. Bolton, MA: Anker.

Smith, P. (1988). Discerning the subject. Minneapolis: University of Minneapolis Press.

Stygall, G., Black L., Daiker D.A., & Sommers, J. (1994). Gendered textuality: Assigning gender to portfolios. In Black, L., Daiker, D.A., Sommers, J. & Stygall G. (Eds.). New Directions for Portfolio Assessment: Reflective Practice, Critical Theory, and Large-Scale Scoring. (pp. 235-247). Portsmouth, NH: Heinemann.

Collaborative Teaching and Cooperative Learning Mathematics for Elementary Teachers

Billy F. Hobbs
Patricia J. Hambrick
Point Loma Nazarene College

Two mathematics courses required for prospective elementary teachers at Point Loma Nazarene College are designed to integrate mathematical concepts and teaching methods. The courses incorporate collaborative teaching by the mathematics and education faculty, small group cooperative learning, and weekly labs that include mathematics in the context of whole language. Course design and outcomes are described in this paper.

Background

Several national reports calling for improvements in school mathematics have generated debate about what mathematics to teach and how to teach it (NCTM, 1989; NRC, 1989; NRC, 1990). Changes in the need for mathematics, the nature of mathematics, the role of technology, and understandings of how students learn mathematics have influenced recommendations for change. These reports are remarkably consistent in their sense of urgency for improvements in school mathematics; their conclusions about characteristics of effective mathematics curricula and instructional approaches are also consonant.

Two mathematics courses required for prospective elementary teachers at Point Loma Nazarene College were redesigned about three

years ago to reflect substantive changes in content and teaching style. The redesign was driven by a constructivist philosophy of teaching and learning mathematics and by current professional recommendations. These courses, four semester units each, include a two-hour weekly lab taught by the education faculty. The mathematics faculty teach the three-hour classroom portion of the courses. The two instructors integrate mathematical concepts and teaching methods; thus, the lab and classroom experiences support and strengthen one another.

Students are engaged, in class and out, in active learning. Both classroom and lab experiences involve hands-on activities and interaction with others in a problem-solving environment. Instructors serve as facilitators of learning - designing group tasks and activities, helping students answer their own questions, and lecturing much less.

Integration of Concepts and Methods

There is a contiguous, coordinated development of mathematics and teaching methods in both classroom and lab meetings. Integration of concepts and methods for prospective elementary teachers was implemented more than a dozen years ago at Point Loma. That decision was based on experiences of both students and faculty suggesting that current understanding of relevant mathematical concepts and procedures makes discussion of teaching methods more meaningful.

Integration of concepts and methods is assured by collaborative teaching and the two-hour weekly lab. Integration occurs in the

classroom, taught by the mathematics faculty, by developing conceptual knowledge with clear connections to procedural knowledge, by engaging students in a concrete-pictorial-symbolic learning sequence, and by regularly relating course material to the elementary classroom.

Example

The concept of whole number addition is introduced in the classroom by engaging students in a discussion of how a child's understanding of addition is developed. Elementary school activities combining sets of concrete objects, then circling pictures of sets of objects, are used to motivate and illustrate the college-level development of addition. Thus, the sum a+b of any two whole numbers a and b as the number of elements in the union of two disjoint sets A and B having a and b elements, respectively, is made more understandable in two ways. First, the concrete and pictorial approach, often missing or forgotten in the students' experience, is reviewed as the basis for the more abstract treatment. Also, a procedural understanding of addition based on set union is seen as more significant, since it is patterned after the concrete process. Such an understanding is important because properties of whole number addition, such as closure, communtativity, and associativity, are developed from corresponding properties of set union.

Course Laboratories

Weekly labs, taught by the education faculty, emphasize teaching methods and hands-on activities for mathematical concepts currently under development in the classroom, further strengthening the integration discussed above. Students are also engaged in analysis and discussion of documents that reflect current professional emphases, such as the Curriculum and Evaluation Standards for School Mathematics (NCTM, 1989) and the Mathematics Framework for California Public Schools (State Department of Education, 1992).

In the lab, students study how children learn mathematics. Students also learn to teach mathematics developmentally, the importance of set induction, classroom management techniques, and how to integrate technology with teaching mathematics.

Throughout the semester students prepare materials consistent with current recommendations to be used later in their own classroom. Students also approach mathematics in the context of whole language, which encourages the use of children's literature to enhance student learning of mathematical concepts. Students purchase a manipulatives kit which includes samples of common classroom manipulatives. They prepare lessons, games, and activities incorporating manipulatives, children's literature, and effective practices in mathematics.

Use of Groups

Cooperative learning in small groups is an important support mechanism for effective learning and reducing "math anxiety." During the first class meeting, students provide information used by the classroom instructor to form groups of four at the next class meeting. Each group is heterogeneous, based on a mix of attitudes, perceptions, experiences, and competencies relevant to success in the courses. The collection of groups is designed to be as homogeneous as possible.

Each group selects a name, arranges times to meet outside class, and stays together throughout the course. Handouts and a case study provide suggestions for effective group work, but groups are expected to solve their own problems. The major problem for most groups is finding times to meet. Some groups have difficulty learning to work together (dealing with a dominant or silent member), but there are few really dysfunctional members. Switching groups is rare, and is arranged only by the instructor.

Students sit with their group in class. Groups work together in class, out of class, and in the lab. Weekly group and individual assignments are handed in for grading; both group and individual tests are given; the final examination is individual. Group work in class involves "tasks" used to engage students in active learning and to replace much of traditional classroom lecturing.

Classroom Tasks

Group tasks for the classroom are carefully designed by the instructor to develop and illuminate mathematical concepts, procedures, and results. Tasks are typically sequenced to develop material that might otherwise be covered in lectures. Tasks are short (30 seconds to a few minutes) and are usually presented as questions, worksheets, or activities. Tasks are used to develop dialogues between groups and between the instructor and the groups. Specifically, groups may be challenged to propose extensions of their results, then defend their proposals.

Example

Traditionally, an instructor might write the following definitions on the board:

1. A prime number is a whole number greater than 1 that has exactly two factors.
2. A composite number is any whole number greater than 1 that is not prime.

Then examples are given and exercises are assigned. In the redesigned courses, an instructor might design a task asking groups to represent each whole number from 2 through 20 (or 30 or ?) as a rectangle of dots (arranged horizontally) in as many ways as possible. Groups will represent, for example,

2: ▪ 3: ▪▪▪ 6: ▪▪▪▪▪▪ and ▪▪
▪▪▪

Next the groups are asked to use their results to classify the numbers, describe the criteria used and the classes obtained. One

possible response is that there are two classes determined by whether or not the number has only one representation. Other responses include classes of numbers representable in 3 rows, or as a square, etc. From these responses and the ensuing dialogue, the meaning of prime, composite, multiple of three, square, etc. evolve. Using this approach students are involved in their own learning, and they have experienced an effective method for introducing these concepts to children.

Grading Policies

The course grade is a weighted average of the classroom grade (75%) and the lab grade (25%). Lab grade components include a mathematics ideas notebook, lesson plans and peer teaching, journal articles, a philosophy of teaching paper, attendance and participation, and tests and final examination.

The classroom grade is a weighted average of grades for *individual* work and for *group* work done in the classroom. If the individual and group grades differ by less than 5%, then they are weighted equally. As the difference between individual and group grades increases, so does the weight of the individual grade, up to a maximum of 75%.

Components of the classroom *individual grade* include homework (15%), Test 2 (an individual test, 25%), participation/attendance (10%), and the final examination (individual, 50%). Components of the classroom *group grade* include homework

(20%), Test 1 (a group test, 35%), average of scores on Test 2 (an individual test, 10%), and Test 3 (a group test, 35%).

These policies encourage students to take both the group work and the individual work seriously. Weaker students benefit from the support of their group, but they must take ultimate responsibility for their own achievement. Stronger students benefit by helping weaker students understand, yet their grade is not unduly affected by weaker students.

Current Outcomes

One outcome evident to faculty is that the redesigned courses require more time to teach. The instructional methods require additional time, since designing lab activities and meaningful tasks take longer than preparing lectures. The use of groups also requires more time--time to organize and administer the groups, to consult with them, and to prepare meaningful group tests and homework assignments. The groups also require more time for record keeping and grading.

However, all other outcomes are very favorable. Based on the experiences of course instructors and feedback from faculty advisors and public school supervisors, students in the redesigned courses have more positive attitudes and their achievement has improved.

Students like working in groups, and they are able to work more independently than before. Students also prepare an extensive collection of materials ready to use in their own classroom. Students

and faculty alike see the redesigned courses as a significant step forward in the task of preparing students to teach elementary mathematics.

References

California State Department of Education. (1992). Mathematics framework for California public schools, kindergarten through grade twelve. Sacramento, CA: The Department.

National Council of Teachers of Mathematics. (1989). Curriculum and evaluation standards for school mathematics. Reston, VA: NCTM.

National Research Council. (1990). Reshaping school mathematics: A philosophy and framework for curriculum. Washington DC: National Academy Press.

National Research Council. (1989). Everybody counts: A report to the nation on the future of mathematics education. Washington, DC: National Academy Press.

UNIVERSITY OF REDLANDS
1200 East Colton•P.O. Box 3080•Redlands, CA 92373-0999

REDLANDS CA
OCT 17 95
PB METER 7001368
$3.00
U.S. POSTAGE

UNITED STATES

JUDY BECK
AACTE
ONE DUPONT CIRCLE SUITE 610
WASHINGTON DC 20036-2412

BEST COPY AVAILABLE